



FREE

IBB Polish Building Wholesale

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We've been shortlisted in the category **Innovation of the Year**

London Build 2016

as the developer of innovative software and technology for the construction sector

- Living architecture
- The Right to Buy
- Construction Tax Frauds
- PKO Szczecin Open 2016



ISSUE EXTRA

AVAL

The Guide to

LEVELLING FLOOR COMPOUNDS

Professional

External Wall Insulation & Render System



education sponsorship merchant construction IBB Builder Earn with us
 technology
 building materials
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Innovative technology

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FROM EDITOR



Dear Readers

We are starting October with some great news for you. IBB Polish Building Wholesale has been announced the finalist in London Construction Awards in two categories - London Build Excellence and Innovation of the Year- Software. We are extremely proud to be shortlisted to the final stage and we are looking forward to the awards ceremony at the end of the month. You can read more about these prestigious awards in this edition.

This month we are once again introducing you to IBB innovative 'Earn with Us' programme. It is already launched so we invite you to read what income opportunities it offers and how to engage. It is a loyalty network marketing programme available for users of our IBB estimator app or its online version. IBB Estimator is the estimating tool designed by IBB which allows you to generate quick and professional quotes, save on orders in IBB depots, access our magazine IBB Builder wherever you go and maximise your profitability by registering for 'Earn with Us' Programme. Unleash your full potential with IBB.

As always we are searching for valuable information from the sector and we hope to be the first port of call for you for construction news, regulations and education. This month we are telling you about the new platform Enviro-mate designed to sell or buy the leftover materials and tools. You can save on waste costs, purchase materials at a bargain price and become more environment-friendly by using this innovative service. The article about Living Architecture is an interesting insight into the revolution taking place in the construction industry by using sustainable resources like for instance, digestive bricks or algae facades. We all should aim for better standards in construction, have a look at the quality mark BfL 12 which is described in our regulations regular.

In technology section, we have included for you the extensive guide by Atlas to the levelling floor compounds. It is the informative guidance on materials and application techniques. The comparison between cement screed and anhydrite will give you the insight into the flooring options. 'The school of flooring' by Atlas is a very comprehensive compilation of all aspects of levelling compounds. For your reference, we have prepared an example of cost estimation, which hopefully will help you with flooring works quotations.

Do you consider working in construction? IBB Builder is actively attracting young builders into the sector. Every month we are showing the possibilities of courses, training or work placements which can help to open the door to work in this challenging but profitable sector. This month we are writing about The Construction Youth Trust which offers fantastic opportunities for young people to learn what the construction is all about.

Moreover, you will find here information about The Right to Buy Scheme which will enable council tenants to buy their homes at discounts. We are also writing about the HMRC personal tax account. If you have not yet registered yourself, do it now and have all your tax affairs in one place. HMRC portal is designed to make the tax less time consuming. You can update your information, file your tax return or make a claim.

Summer is over, but we would like to share with you some great memories. In the sports section, we are telling you about our sponsorship activity during holiday months. Read about 2016 PKO Szczecin Open tennis challenger tournament. We are proud to support this fantastic world class tennis event. IBB Builder special Polish edition was there too :)

If I am talking about sport, the season is now on for IBB Polonia London VC. Have a look at the sports news section to read about their plans for 2016/2017 season and we hope you will support them on their first tour abroad. What's more IBB Polish Building Wholesale extended the sponsorship activity and starting to help IBB Polonia London FC in training little footballers, read more details inside.

In my last words here, I would like to invite you all to the great construction event London Build Expo which will be held in London Olympia on the 26th and 27th October. We will be exhibiting there. Don't miss the opportunity to attend meet the buyer sessions, conferences or to update your knowledge of building technologies and innovative solutions. It is the place to be this month! Enjoy this month edition and see you at the London Build.

Magdalena Rosó
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Innovative
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Enviroamate

New platform to sell or buy the leftover materials or tools.

The share of construction activity in the total waste production is enormous. Construction industry waste accounts for 32% of the total landfill waste. Over ordering, damage due to poor storage or inappropriate use leads to tones of construction waste each year. The Government's Sustainable Construction Strategy aims for zero waste to landfill by 2020.



Construction, Refurbishment and Demolition activity produce approximately 100 million tones of waste in the UK annually. 3Rs approach (Reduce, Recycle, Reuse) has been adopted effectively in the sector, and about half of that waste is recycled. However, the amount of surplus materials are still high, and most of these are going to waste.

Enviroamate promotes the sustainable construction by creating the platform for selling and buying the remaining building materials and tools. It encourages builders to reuse and save the environment. Reusable materials instead of being thrown away are listed on the portal for others to buy.

By using Enviroamate builders can save on waste

disposal costs and storage. Moreover, they can get at bargain price materials that are no longer needed by another tradesman. Using Enviroamate platform makes the company more sustainable and environment-friendly. To use Enviroamate- the UK's leading construction marketplace for used or remaining materials, register and create an account on www.enviroamate.co.uk.

BOOK REVIEW

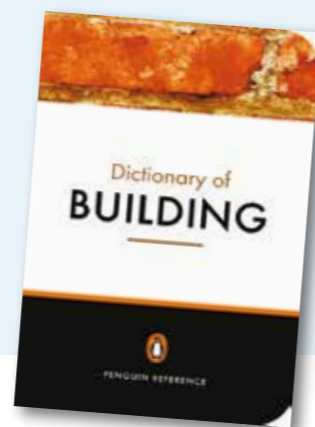
The Penguin Dictionary of Building (Penguin Reference Books)

by John S. Scott, James Mclean (Edited by), John S. Scott (Edited by) 16 Aug 1993

'Do you need to know your lime putty from your lime plaster? Want to improve your flatness tolerance? Stuck with an incomprehensible DIY manual? The Penguin Dictionary of Building is your answer. Ably steering you through the confusing maze of jargon and technical terms, this ever-popular text has sold over 150,000 copies and is invaluable for anyone interested in construction: students, professional architects, bricklayers, carpenters, glaziers, plasterers, plumbers or DIY enthusiasts. From abrasives to

Z-purlin via the murder clause, this clear and comprehensive dictionary provides succinct and accurate explanations of the techniques, equipment and issues of the building world.'

A very comprehensive and well-described dictionary of building terms. This book alphabetically defines terms used in the construction industry. Clear explanations and some useful diagrams are included. If you want to grasp some construction terminology, then this book is a god sent! Highly recommended!



HM Revenue & Customs Personal Tax Account

Personal Tax Account makes the tax less formal and time consuming. Taxpayers can access their Personal Tax Account online on any device; it is accessible on PC tablet or smartphone.

Register on GOV.UK and set up the Government Gateway account to use this online service. Details required for registration include the National Insurance Number, recent payslip or P60 and telephone number to receive the security code.

Via digital Personal Tax Account taxpayers can get tax refunds from HM Revenue & Customs directly to their bank account. The online system allows the overpaid tax to be repaid directly to the bank account within 3-5 days. The bank account details are required to set up the repayment.

Ruth Owen, Director General of Customer service, HMRC said: "This new service puts customers in control of their tax affairs allowing them to claim any money owing to them immediately. They can claim at a time that suits them, from a device of their choice, securely, and without needing to wait for a cheque in the post.

"Now customers will have access to funds cleared in their account within 3-5 days rather than the two weeks it would typically take for a cheque to be issued, banked and cleared."

Moreover, the Personal Tax Account allows

- viewing and updating personal details
- checking Income Tax estimate and tax code
- checking how their tax is calculated
- filling in, sending and viewing a personal tax return
- tracking the progress of forms submitted
- making claims online regarding tax credits payments etc.
- checking and managing tax credits
- report changes in circumstances

- checking the level of the expected state pension
- finding out about the Marriage Allowance entitlement
- updating benefits received from work e.g. company car or medical insurance
- applying online for the tax credit refund

Personal Tax Account was launched in December 2015. There were concerns with the security or authentication. Security of data is ensured through various defence measures and constant monitoring. Regarding authentication, there are few ways to prove who the person is :

- GOV.UK.Verify
- Government Gateway account
- Identity verification through questions

based on the previous online activity connected with government

GOV.UK.Verify is the verification tool where the applicant's identity is confirmed by one of the certified companies. The company chosen may ask some questions, or perform checks using photo identification and financial information before confirming the applicant's identity.

It is a safe, faster and simpler way of accessing government services online. The company doesn't know which service the applicant is trying to access, and the government department doesn't know which company the applicant choose. It can be done online, without going to prove the identity in person or by post. This verification method requires UK Photo Driving Licence or UK Passport.

GOV.UK

[Home](#) > [Money and tax](#) > [Dealing with HMRC](#)

Personal tax account: sign in or set up

Use your personal tax account to check your records and manage your details with HM Revenue and Customs (HMRC).

To sign in for the first time, you'll need:

- a [Government Gateway account](#) - you'll have one if you've used HMRC online services before
- a National Insurance number (a temporary reference number won't work)

Signing in creates your account.

[Start now >](#)

Construction Tax Frauds

Tax evasion has been a problem for the HM Revenue & Customs (HMRC) as tax cheats cost both the government and local councils significant funds from the tax revenue every year. The Government has employed some measures to fight fraud for instance, implementing large penalty fines and prison sentences to tax offenders. The technology is also being used to identify and track scams. A data of employee and contractor addresses and bank accounts can be analysed to highlight suspicious links. The construction industry is coming under increasing scrutiny as there are loopholes in the sector which can be used to defraud HMRC.

The tax evasion cases are public, and one of the most recent victories of HMRC over the construction tax offenders is the identification of a trend in the financial accounting of local tradesmen, with many of them known to each other. They all worked for a company on a self-employed basis and were paid monthly, but failed to register with HMRC for Self Assessment, instead keeping the money they should have handed over in Income Tax and National Insurance. The company was not implicated in the fraud. The combined tax fraud total for all 17 tradesmen from the East Midlands was near £643,000. The final defendant, an electrician Aleksandr Gebski who failed to declare his earnings to HMRC from his job, was sentenced as part of the investigation.

Brett Wilkinson, Assistant Director, Fraud Investigation Service, HMRC, said:

"This was a group of individuals who decided to keep taxpayers' money that should have been funding vital public services. As self-employed traders in the construction industry, they believed it was a quick way to make easy cash, with little risk of getting caught - but they couldn't have been more wrong. "This last prosecution brings to an end a scam extending across the Leicestershire area and shows HMRC is levelling the playing field for honest

tradesmen. The sentences passed down should be a warning to anyone thinking about committing tax fraud - it's a criminal offence, and we won't hesitate to use our full range of powers to ensure that nobody is beyond the law. "We ask anyone with information about suspected tax fraud to contact our 24-hour hotline on 0800 59 5000."

Aleksander Gebski pleaded guilty to the fraudulent evasion of £28,196.36 of Income Tax and National Insurance at the start of his trial at Leicester Crown Court on the 22nd August 2016 and was sentenced to 21 months in prison, suspended for two years. He was also placed on a four-month curfew and ordered to pay £700 costs. All 17 tradesmen have been prosecuted under the Project Dobbin investigation, and many pleaded guilty last year, receiving a mixture of immediate custodial sentences, suspended prison terms or being ordered to carry out hundreds of hours of unpaid work.

The fraud in the construction sector is not only connected with the non-payment of PAYE tax and National Insurance Contributions but also common as:

- the use of false invoices
- hi-jacked VAT registrations

- contrived insolvencies
- under-priced contracting

The HMRC leaflet 'Use of Labour Providers- Advice on Due Diligence' is a guidance for those who supply labour to the construction industry to ensure that the appropriate checks have been conducted. Not only the cash in hand payments and the employment issues have drawn the attention of HMRC but also connected with VAT payments. To ensure there is no loophole for tax avoiders, the main contractor can be denied the repayment of their input VAT if the sub-contractor does not pay the VAT.

The tax avoidance in the construction industry is very common, however, the irregularities might be caused not by planned criminal offences but due to negligence or errors. In some cases, tax investigators are keen to make agreements if an alleged fraud was proved to be only an inaccurate book-keeping due to the burden of jobs. Construction companies are encouraged to employ professionally accredited accountants and seek legal advice to avoid troubles.



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IBB Polish Building Wholesale is shortlisted for the 2016 London Construction Awards

IBB Polish Building Wholesale has been announced as the finalist in prestigious Construction & Engineering Awards. The 2016 Construction & Engineering Awards have been designed to reward and recognise the most innovative and successful projects. These awards highlight

excellence across every aspect of construction and engineering. Categories include product innovation, health & safety, education, and corporate and social responsibility.

The judging panel consists of the industry experts who will recognise and reward the

outstanding achievement in the construction sector.

IBB Polish Building Wholesale has achieved a finalist position in 2 categories:

- **Excellence**
- **Innovation of the Year Software**



CONGRATULATIONS YOUR COMPANY HAS BEEN SHORTLISTED

Following your recent submission to the London Construction Awards, We are delighted to announce that **IBB Polish Building Wholesale** has been shortlisted to the final in the following categories:

London Build Excellence Award

The Winners and Runners Up will be announced during the awards gala dinner ceremony on the evening of the 26th October at the exclusive venue, The Royal Garden Hotel, London.

For further details on your application or to reserve tickets to attend the Awards Ceremony at, The Royal Garden Hotel, London, please contact:

awards@londonbuildexpo.com or +44 (0) 203 058 2350.

We look forward to seeing you at the show!

#LondonBuild @LondonBuild2016 www.londonbuildexpo.com



CONGRATULATIONS YOUR COMPANY HAS BEEN SHORTLISTED

Following your recent submission to the London Construction Awards, We are delighted to announce that **IBB Polish Building Wholesale** has been shortlisted to the final in the following categories:

Innovation of the Year – Software

The Winners and Runners Up will be announced during the awards gala dinner ceremony on the evening of the 26th October at the exclusive venue, The Royal Garden Hotel, London.

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We look forward to seeing you at the show!

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Building for Life

- The Quality Mark



Building for Life 12 (BfL12) is a government-endorsed industry standard for well-designed homes and neighbourhoods. It is the sign of the quality developments and it gives the homebuyer the confidence that essential elements were checked and approved during the planning process.

These elements include for instance, car parking, safe streets, access to amenities etc. All engaged in the building industry, from local authorities to developers are encouraged to apply the BfL12 to create modern and good places to live. It will help local planning authorities to assess the quality of proposed and completed buildings. This standard can be used for build specifications, design codes and local building policies. BfL12 is led by three partners: Cabe at the Design Council, Design for Homes and the Home Builders Federation, supported by Nottingham Trent University.

Developments assessed towards BfL12 standard achieve 12 green, amber or red points. The achievement of 9 greens enables Build for LifeTM accreditation. 'Built for LifeTM' accreditation is a quality mark available immediately after planning approval, offering developers the opportunity to promote the quality of their developments during sales and marketing activity. It will also help those seeking a home to find a place to live which has been designed to have the best possible chance of becoming a popular

and desirable neighbourhood. BfL12 helps during the design process to demonstrate compliance with the National Planning Policy Framework and Planning Practice Guidance.

'Built for Life accreditation gives the consumer confidence in the quality of developments and the consideration that has gone into all aspects of the build.' Nick Boles MP, former Parliamentary Under Secretary of State for Planning. Homebuyers can check if the development have achieved Built for Life TM on www.builtforlifehomes.org.

The 12 criteria of the Building for Life

Local authorities are encouraged to adopt BfL12, but to avoid setting a requirement for all proposed developments to achieve 12 'greens'. Instead, it is recommended that local policies require all proposed developments to use BfL12 as a design tool throughout the planning process. Moreover, local authorities are advised to consider expecting developments to demonstrate they are targeting BfL12 where applications for outline planning permission is granted.

Integrating into the neighbourhood

- Does the scheme integrate into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the development site?
- Does the development provide (or is it close to) community facilities, such as shops, schools, workplaces, parks, play areas, pubs or cafes?
- Does the scheme have good access to public transport to help reduce car dependency?

- Does the development have a mix of housing types and tenures that suit local requirements?

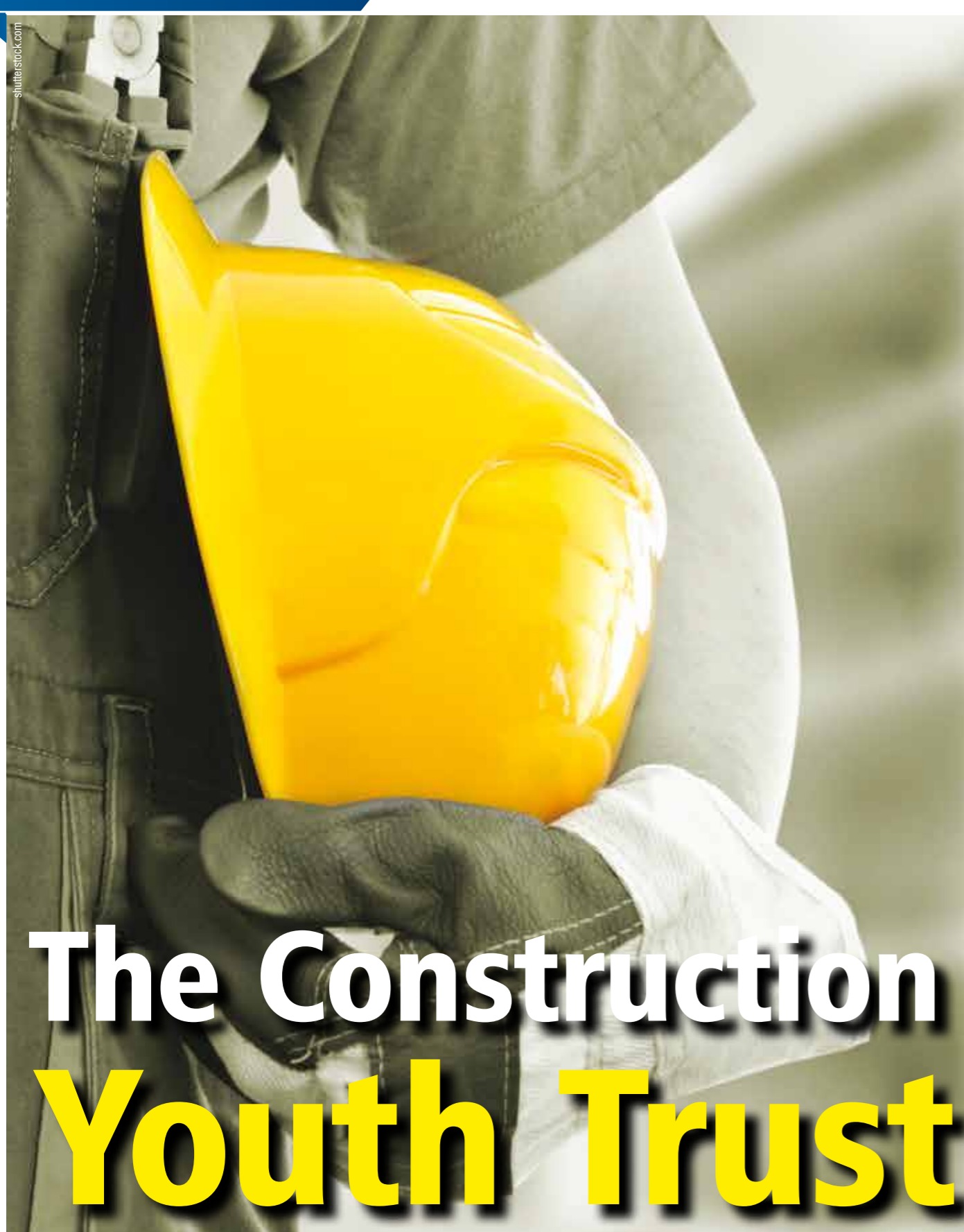
Creating a place

- Does the scheme create a place with a locally inspired or otherwise distinctive character?
- Does the scheme take advantage of existing topography, landscape features (including water courses), wild-life habitats, existing buildings, site orientation and microclimates?
- Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?
- Is the scheme designed to make it easy to find your way around?

Street and home

- Are streets designed in a way that encourage low vehicle speeds and allow them to function as social spaces?
- Is resident and visitor parking sufficient and well integrated so that it does not dominate the street?
- Will public and private spaces be clearly defined and designed to be attractive, well managed and safe?
- Is there adequate external storage space for bins and recycling as well as vehicles and cycles?

(Source: www.builtforlifehomes.org)



The Construction Youth Trust

Construction Youth Trust is a charity which provides training, education and employment opportunities in the construction sector for young people in England and Wales. The Construction Industry Youth Trust was established in 1961.

Construction Industry Trust for Youth changed its name to Construction Youth Trust and upgraded its operations from a grant-giving Trust to directly delivering a wide range of programmes from education to employment and working with over 4,500 young people per year. Nowadays charity offers a range of courses for young people who are interested in construction.

Budding Builders

The free Budding Builders courses provide entry-level construction training and progression routes into the building industry. These courses are designated for people aged 14-30, struggling with school, unemployed or looking to change qualification. OCN London accredited courses are run at the training centre in Bermondsey, London. Practical construction skills such as bricklaying, plastering, carpentry, tiling and others can be

obtained there. Construction Youth Trust also offers mobile classroom training across England and Wales creating the opportunity to take part in short courses ranging from carpentry to plumbing, decorating and health and safety. The practical experience can be gained by participating in the community projects like for instance building a new pathway and new seating areas for residents or refurbishing empty properties or community centres.

Budding Builders courses offer:

- new skills in construction
- industry recognised qualifications
- training for CSCS card
- gaining work experience
- meeting people and work as a team
- support after course - further training, work placements, employment or apprenticeships

To find out more or to get involved write to hello@constructionyouth.org.uk

Routes into Construction

Routes into Construction is a programme designated for young people aged 16-24 from the boroughs of Southwark, Lambeth, Croydon and Wandsworth. It provides youths with work experience placements so they can get insight into the sector by the on-site training. Routes into Construction is a part of the Greater London

Joint Initiative Programme in partnership with CITB. It brings together some construction employers who are committed to providing practical work experience opportunities for young people. Programme is an excellent opportunity to find a route into the building industry.

To get more information call Construction Youth Trust on 0207 467 9540

Budding Brunels

Budding Brunels is a 3-day course aimed at students in their Year 12 and 13. It is a three days programme which shows students different roles available in the sector, ranging from project manager to surveyor. It includes visiting construction sites, meeting professionals from statement projects like Cheesegrater, Crossrail or the Olympic Park and visiting universities and technical colleges. It provides the insight about the various progression routes, and those who do well in workshops will have the opportunity to proceed with work placements. The Trust is working in partnership with Network Rail on a new project called Budding Brunels Rail which will raise the awareness and create opportunities to get on Network Rail's apprenticeships.

For more info email buddingbrunels@constructionyouth.org.uk or call on 0207 467 9540

Visit www.constructionyouth.org.uk for all details.



Home Ownership

The Right To Buy

The Right to Buy scheme was introduced in 1980 and is designed to help council and housing association tenants buy their home. Under the scheme, tenants can buy the property at a discount.

Since April 2015 maximum discounts were increased from £16,000 in some areas to a maximum of £77,900 across England (£103,900 London). The longer the tenant rented the property, the bigger the discount he gets off the market value of their home. The amounts of discount will increase every year on the 6th April in line with the Consumer Price Index (CPI). Already more than 33,000 households have taken up their Right to Buy. Funds raised through sales are going towards building new affordable homes for rent.

Buying a house- discounts start at 35% after three years of eligible tenancy. This remains at 35% until the tenancy reaches five years. After five years 1% is added for each extra year up to 70% or the cash maximum, whichever is lower. (e.g. 10 years tenancy = 40%, 20 years' = 50%)

Buying a flat- discounts start at 50% for three years' rental. This remains at 50% until you reach five years' tenancy. After five years add 2% for each extra year of tenancy up to 70% or the cash maximum, whichever is lower. (e.g. 10 years tenancy = 60%, 15 years' = 70%)

Eligibility

- The Right to Buy applies to council tenants or council tenants at the time their home was transferred to another landlord
- Being a public property tenant for at least three years
- Joint application is possible (with family or someone you share the property)
- Home is not going to be demolished
- Home is not the sheltered housing or for disabled or elderly people

- Tenant does not have any legal problems with debt
- Tenant does not have any outstanding possession orders

Home ownership step by step:

1. Check eligibility
2. Check costs connected with home ownership
 - mortgage costs
 - survey costs
 - legal advice costs
 - stamp duty
 - ongoing costs of maintenance and repairs, insurance, service charge if applicable
 - as a homeowner, you will have not right to housing benefit
3. Fill in an application form (RTB1). Download form at www.communities.gov.uk/righttobuy
4. Confirm eligibility- the landlord has up to 4 weeks to reply confirming whether you have the Right to Buy (this is eight weeks if you have been with your current landlord for less than three years).
5. Get the offer- the landlord has another eight weeks to send an offer notice for a house or 12 weeks for a flat. This offer notice, which is known as an S125 notice, sets out:
 - their valuation of your property*, your discount, the price you'll pay
 - any structural problems they know about
 - any terms and conditions
 - For leasehold properties only, the S125 offer notice will also include an estimate of the service charges that you will need to pay over the next five years. If your landlord does not keep to the timescale, you can get the reduction in price.
6. Accept the offer and arrange the mortgage- you have up to 12 weeks to accept the offer.
7. Complete the purchase

Selling your property

Property bought through the Right to Buy can be sold, but the following restrictions apply:

Selling within ten years:

Firstly owner has to ask the former landlord if they want to buy the home back at market value. If the previous landlord refuses then, the owner can sell it on the open market.

Selling within five years:

Tenant will usually have to repay some or all of the Right to Buy discount – the amount depends on the selling price of the house and the time of ownership. Same applies if the tenant agrees to transfer the property to somebody else.

If the tenant lives in a rural area:

you may only be allowed to sell your home to someone who lives or works locally.

There is the Government's Right to Buy agent service that offers free advice on the Right to Buy scheme. It provides support during the process of buying, including information on finding a mortgage, appointing a solicitor and arranging a survey. Right to Buy advisers are available from Monday to Friday, 8 am to 6 pm. You can phone or chat online with them. 0300 123 0913 www.communities.gov.uk/righttobuy

Things to consider:

- Homeowners are not eligible for housing benefit.
- Home insurance and life insurance should be considered (some lenders require this).
- Home could be at risk of repossession if the owner fails to keep up with mortgage or loan repayments.
- Check if banks are willing to accept mortgages on previous council or housing association properties in case of selling in the future
- Check upfront all costs associated with buying the home.
- Remember that the value of the property can increase or decrease in the future.
- Interest rates can also fluctuate.

Source: righttobuy.gov.uk



The BIQ House, Hamburg, Germany

Living architecture

The BIQ HOUSE - first building in the world with bio-reactive microalgae facades

Arup's BIQ house is the first building with Bio-Intelligent Quotient (BIQ) situated in Hamburg, Germany. It is the prototype building that combines design, smart technologies and modern building materials. The construction of the BIQ House cost approximately 5 million Euros. This five storey passive house has two types of facades. The sides of the building which are exposed to the sun are built with the shell consisting of Microalgae what enables the building to supply its own energy. Microalgae are the source of the renewable energy and generate electricity and heat. Moreover, Microalgae biomass collects energy by absorbing the light and generating heat in a similar way to the solar thermal unit. Such heat can be used for central heating or can be kept in the special heat exchangers. Also, the façade has the function

of insulating the building from sound, heat, and cold, and provides shade in bright sunlight.

The BIQ house is a solid cubic built of stonework and concrete. The building consists of 15 apartments, and some of them can be switched to a neutral zone. Interior design is very straightforward and modern; the living space has underfloor heating. The facade is built with the conception in mind that light can be converted to heat like in solar thermal design. It also can be converted to biomass. Microalgae-like vegetables use sunlight for the photosynthetic process and this is linked to the process, of conversion of CO₂ to organic matter. This fact leads to a new opportunity of reducing CO₂ emissions through building façades. The combination of different energy sources which work together makes the BIQ house a sustainable building. In one building the combination of solar energy, geothermal energy, a condensing boiler, district heating and biomass production is used to enhance the building performance.

The Energy cycle with renewable systems is based on the principal point of all processes- the algae reactor modules. Bioreactor facade due to sunlight and a constant turbulence produces heat and biomass. It achieves significant CO₂ reduction per year in comparison to other technologies. Algae Biomass collect the biomass which is transformed into biogas in the outdoor plant. The associated heat production is transferred back into the system via the heat exchanger and stored in the geothermal boreholes. Biogas is also converted into methane. A heat pump is used in the pumping back the heat into the system. A gas burner is used to cover the supply of hot water at 70 C or heating in the energy network. A central building management system (BMS) called Rockwell SPS manages all the processes necessary to operate the bioreactor façade and to fully integrate it with the energy management system of the building. This includes the control of the algae cell density and the temperature in the culture medium. "Wilhelmsburg Central Integrated Energy Network" is the name of the local network which provides/ receives heat to/from this building. Initially, the original plan envisaged the use of photovoltaics on the extensively greened roof surface. But this was not implemented. Therefore, until the installation of PV system, all electricity required is provided from the grid. The heat demand of the building is already relatively low since the "BIQ" runs in accordance with the Passive House standard. Much of the heat is therefore needed on a seasonal basis for hot water.

The LIAR project - smart digestive bricks

Newcastle University has launched a new project which focuses on the development of the living architecture (LIAR). It aims to transform building facades into biological computers made of digestive bricks that can create useful products from waste. Clever brick will be able to collect resources from sunlight, wastewater and air. Walls built of digestive bricks will work as bioreactors and can be easily incorporated into buildings. At the heart of the new blocks is a microbial fuel cell filled with programmable synthetic microorganisms. Robotically activated each chamber will contain microorganisms chosen to clean water, reclaim phosphate, generate electricity and create new detergents. The living cells will be able to sense and react to their surroundings through a series of digitally coordinated mechanisms.

Rachel Armstrong, Professor of Experimental Architecture at Newcastle University, explains: "The best way to describe what we're trying to create is a 'biomechanical cow's stomach. It contains different chambers, each processing organic waste for a different, but overall has related purpose - like a digestive system for your home or your office."

The LIAR project is incredibly exciting - it brings together living architecture, computing and engineering to find a new way to tackle global issues, like sustainability" Professor Rachel Armstrong, Newcastle University

The project now underway will see the development of blocks through which waste water can permeate allowing microbial fuel cells to go to work. It is anticipated that the first prototype will be exhibited later this year. The researchers also aim to find ways to reclaim phosphate - a mineral which is becoming increasingly scarce - and create new detergents using the blocks. Professor Armstrong explains: "While this project deals with very small amounts of the substance, the insights we will be able to gather into how communities may collectively harvest reusable substances from their wastewater could potentially create an economy through re-distributing resources through councils, or other interested parties such as washing machine manufacturers."

The LIAR project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 686585.

How to make money with IBB estimator app?

Earn with us - the IBB Loyalty Programme

IBB Estimator offers an excellent opportunity to make some additional income. There is no magic. Here is how it works.

We have decided to dedicate 6% of our profit to businesses and individuals that promote us. Instead of spending this funds on an advertisement we pay our loyal customers. It is a networking programme where we pay a commission for every recommendation to the new customer.

To take an advantage of the IBB Loyalty Programme, you have to be a registered user of IBB Estimator. Once you accept the terms and conditions of the programme, you will be able to recommend us to 10 of your friends or businesses that might be interested in our products and services. Those ten referred customers will be able to mention IBB to next ten customers each, making 100 in total. Next 100 IBB registered users if refer IBB again to ten new customers will make 1000 in total. See table below:

In order for the referrer to qualify for a reward, the referred person must be a new, unreg-

istered customer to IBB and has to present the referrer's unique login when they register for IBB Estimator app or online version. The registration is obligatory. When the referred customer registers at IBB all his purchases will be recorded in our database and the commission will be granted to the referrer. The IBB loyalty programme is based on the main principle - IBB Polish Building Wholesale sell over 5000 carefully selected products and materials at the best prices and the registered users of IBB Estimator qualify for special discounts and offers.

Diagrams - showing potential commission of IBBestimator App user

Earning levels	Max quantity of commitment people/companies	Sample of yearly purchase value (£)*	Commission (£)
1% – commission from yearly purchases from people/companies from the 1st level	10	120,000	1,200
2% – commission from yearly purchases from people/companies from the 2nd level	100	1,200,000	24,000
3% – commission from yearly purchases from people/companies from the 3rd level	1000	12,000,000	360,000
Your TOTAL annually earnings can reach ...			£385,200*

* Quotation is based assuming that each buyer will purchase for 1,000 net per month. Even build up group and commission will be smaller – still the money are earned "when you sleep".



"You cannot be that overworked not to have time to make money".

The possibility of rewards is significant as the commission can be earned on all three levels, what makes the IBB Loyalty Programme an excellent opportunity for additional income. The rewards can be obtained from the maximum 1110 referred customers- 10 in the first level, 100 in the second level and 1000 in the third one. The referrer and the referred customers are not paying anything to participate. It is simply the referral programme based on loyalty to IBB. The earnings are made from the commission on the purchases in IBB Polish Building Wholesale.



The table below shows the possibility of earning extra income by the full commitment to the IBB Loyalty Programme. It is based on the assumption that the referrer will build three levels of referred customers, and each registered IBB estimator user will make a purchase at IBB of at least £1000 per month. Order value of £1000 is an average spending for the builder or small company. Excellent rewards can be gained not only by building three levels of IBB customers. If you can mention IBB to

customers that buy more often and value of their orders is higher than you can earn same commission with a smaller group of referred customers.

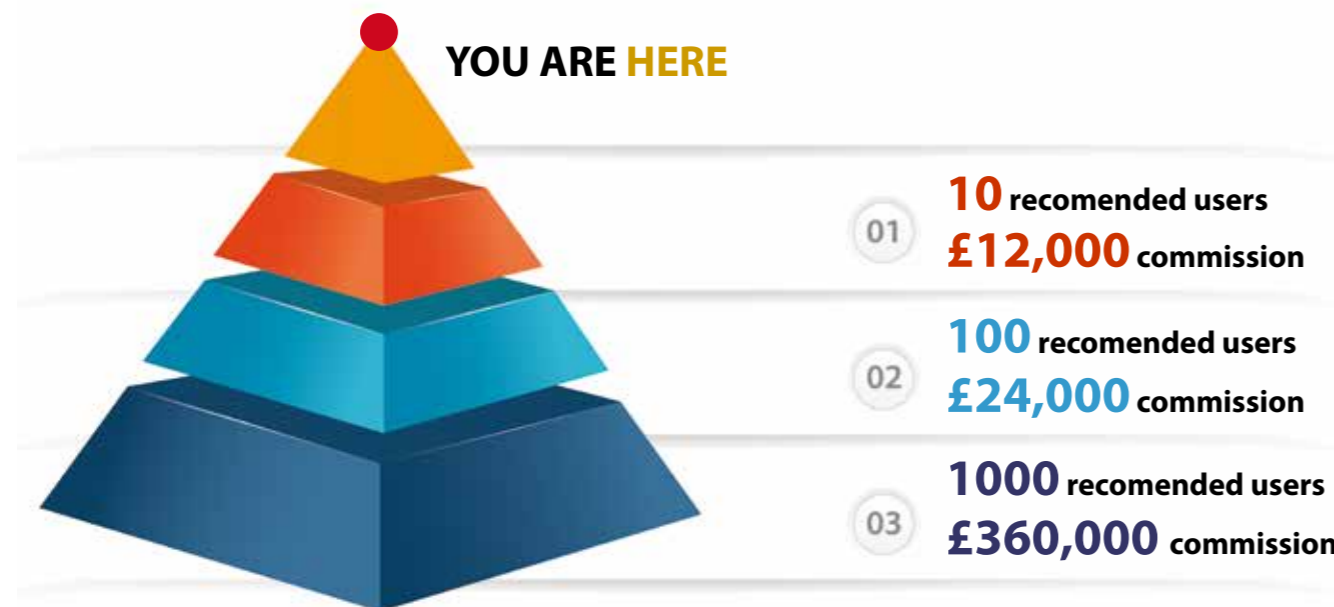
Our specially designed accounting software records each transaction and links each customer's purchase to the login of the referrer. Moreover, the registered user of IBB Estimator can in real time track all purchases, monitor own profit and profit of his whole group and the amount of reward earned.

Rewards in the form of a bank transfer will be paid to the referrer's bank account only after the referrer issues IBB the correct invoice in specially designated option in IBBestimator online within a month after rewards were earned. Rewards will be valid for one month from the date earned by the referrer.

IBB Loyalty Programme Full Terms and Conditions applies.

The commission is calculated as follows:

- 1% on the purchases made by up to 10 referred customers on the **level 1**
- 2% on the purchases made by up to 100 referred customers on the **level 2**
- 3% on the purchases made by up to 1000 referred customers on the **level 3**



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The Guide to



LEVELLING FLOOR COMPOUNDS

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LEVELLING FLOOR COMPOUNDS

What are the types of screeds and standard requirements for them? What is the proper selection of the floor layers in rooms of various purposes?

Regardless the structural arrangement to be used, the screeds (subfloors) can be based on various construction materials. The standard identifies five types of screeds differing in the binder type*:

- CT cement screeds,**
- CA calcium sulfate screeds,**
- MA magnesite screeds,**
- AS mastic asphalt screeds,**
- SR synthetic resin screeds.**

The technical requirements for all types of screeds are listed in the European standard EN 13813:2002 "Screed material and floor screeds. Screed material. Properties and re-

quirements". This standard defines and details the levels or values for particular technical parameters. However, it is mainly the information for manufacturers of screeds, designers or construction supervisors. There is no practical guidance for execution of floors and screeds, or even recommendations on the properties of a screed used in a particular arrangement, e.g. under ceramic tiles or parquet.

SCREDS PROPERTIES

In Europe, the most common are the first two types of screeds - the cement (CT) and the calcium sulfate (CA) ones. Therefore, we will focus on the technical characteristics of these two types of screeds only.

Due to the location and the type of loads the screeds are subject to, the most important are their mechanical properties, i.e. the compressive strength (Tab. 1) and the flexural strength (Tab. 2). If the screed forms at the same time the floor finish, its wear resistance becomes a very important property as well. The standard specifies three alternative methods for determining this technical feature - Böhme method, BCA method and the method for determining the resistance to rolling wheel (Tab. 3-5). Unfortunately, direct comparison of the wear resistance determined by different methods is not possible - perhaps the new edition of the standard, which is currently being amended, will sort out this issue.

Tab. 1. Compressive strength classes (C) for screed materials.

Class	C5	C7	C12	C16	C20	C25	C30	C35	C40	C50	C60	C70	C80
Strength [N/mm ²]	5	7	12	16	20	25	30	35	40	50	60	70	80

Tab. 2. Flexural strength classes (F) for screed materials.

Class	F1	F2	F3	F4	F5	F6	F7	F10	F15	F20	F30	F40	F50
Strength [N/mm ²]	1	2	3	4	5	6	7	10	15	20	30	40	50

* EN 13813:2002 "Screed Material And Floor Screeds - Definitions"

Tab. 3. Abrasion resistance Böhme classes (A).

Class	A22	A15	A12	A9	A6	A3	A1,5	C35	C40	C50	C60	C70	C80
Resistance [cm ³ /50 cm ²]	22	15	12	9	6	3	1,5	35	40	50	60	70	80

Tab. 4. Abrasion resistance BCA classes (AR).

Class	AR6	AR4	AR2	AR1	AR0,5	A3	A1,5	C35	C40	C50	C60	C70	C80
Maximum wear depth [μ]	600	400	200	100	50	3	1,5	35	40	50	60	70	80

Tab. 5. Abrasion resistance to rolling wheel classes (RWA)

Class	RWA300	RWA100	RWA20	RWA10	RWA1
Max. abrasion quantity [cm ³]	300	100	20	10	1

CEMENT SCREDS (CT)

The most popular type of screeds and floor finishes are those based on cement.

Properties:

They have the widest range of use: they can be applied indoors and outdoors (see the box) and with any structural arrangement - as bonded to the substrate, on the separation layer, on the layer of thermal/acoustic insulation or with the under floor heating systems.

SCREDS AND TECHNICAL APPROVALS

One important issue should be mentioned when the European standard EN 13813:2002 is considered - this standard refers to the screeds for indoor use only. Therefore, if a manufacturer wishes to introduce a product intended also for the outdoor use - on terraces, balconies, etc. - then, must acquire a technical approval which confirms the product suitability for the outdoor use.

One may form screeds of various, even very high strength. This enables to use them beneath any type of finish (including parquet and epoxy coatings) and in areas of intensive operations - production, warehousing, etc.

Screeds and cement finishes are manufactured on the basis of Portland cement, aggregate and additives improving the working parameters. The aggregate size and fraction depend on the designed layer thickness - the thicker the aggregate, the larger may be the screed thickness.

According to the standard, the most important technical properties of the cement screeds

are the compressive strength, the flexural strength and the abrasion resistance.

What one can find on the packaging: an exemplary labeling of the cement screeds in accordance to the EN 13813 standard: CT-C30-F6 (floor screed beneath the floor finish), CT-C30-F6-AR6 (floor screed which works as a floor finish at the same time). As you can see, the screed which can be a floor finish at the same time, has the wear resistance parameter listed. It is an essential screed feature, so it withstands the operational loads resulting from the use (foot traffic, forklifts traffic, etc.). This labeling can be found on each packaging and in the Declaration of Performance of the product.

In the ATLAS portfolio: cement screeds called **ATLAS POSTAR** and **ATLAS SMS**. Four of

them: **POSTAR 10**, **POSTAR 40**, **POSTAR 80** and **POSTAR 100** can be both a screed and a floor finish, whereas three of them - **SMS 15**, **SMS 30** and **POSTAR 20** may be used as a screed only.

ANHYDRITE SCREDS (CA)

Screeds based on calcium sulfate, also known as the anhydrite or the gypsum ones, give an alternative to the cement screeds.

Properties:

They are manufactured on the basis of anhydrite or anhydrite dust, alpha gypsum and Portland cement, aggregate and additives improving the working parameters. Although there is also cement in the anhydrite screed, its main task is to activate the anhydrite binding.



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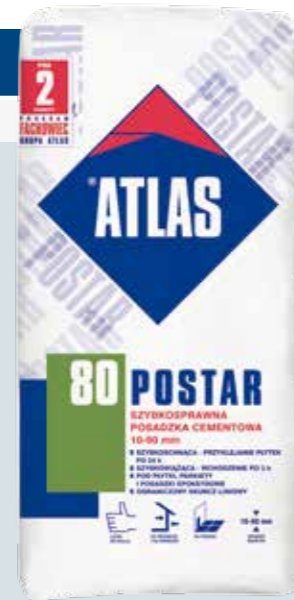
No shrinkage during binding – this allows to pour large areas without the need for additional intermediate expansion joints. For example, if one uses ATLAS SAM 150 screed, there is no need for expansion joints on the areas up to 50 m², providing that the diagonal of the compartment is not longer than 10 meters. This simplifies the execution and is important for investor, as the lack of expansion joints eliminates the need for transferring them onto the top finish layer.

Due to the low linear shrinkage of the binding anhydrite, the layer does not provide concavities or convexities. Therefore, no scratches and cracks occur during binding, which is often an issue in case of the cement mortars.

The screeds based on calcium sulfate are designed for the machine application. The liquid consistency of the mass enables easy spreading and levelling the screed plane. This property, supported by the aggregate finer than in the cement screeds, provides more accurate tucking of the cables or the heating pipes. It virtually eliminates the possibility of leaving voids, which can reduce the efficiency of the heating system, around the cables – the substrate is more homogenous within its whole thickness.

Another advantage of the anhydrite screeds in regard to the execution of an under floor heating is their high thermal conductivity coefficient, much higher than in case of the cement screeds. The anhydrite screed with the heating system heats up quicker and provides more efficient compartment heating.

Restrictions for using the anhydrite products: one should remember that they can be used only indoors and only in dry rooms. Moreover, the anhydrite screed requires longer ageing before the execution of the floor finish. The moisture of the screed/ subfloor should not exceed 1.5%, whereas in case of the cement screeds further works can commence with the 3% humidity.



ATLAS POSTAR 80

It is recommended for quick repairs. It may be used as the floor finish or screed beneath the top finishes like: ceramic and stone tiles, epoxy floors and coatings, PVC and carpet floorings*, parquet and floor panels.

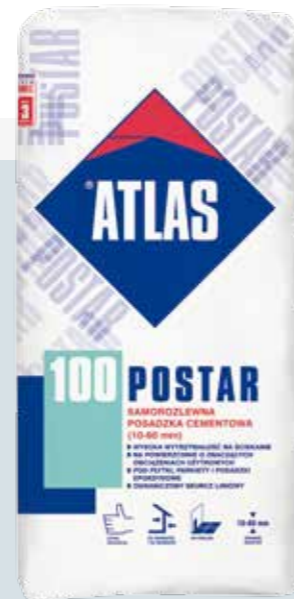
Main properties:

- further works just after 24 hours,
- foot traffic after 3 hours, limited linear shrinkage, high cohesion,
- thick plasticity.

Main parameters:

- consumption: 20 kg/1 m²/1 cm layer
- thickness: 10-80 mm
- high compressive strength: ≥ 40 N/mm²

* Before the application one should execute a smoothing layer with the use of ATLAS SMS 15 or ATLAS SMS 30.



ATLAS POSTAR 100

It forms the floor finish layer of high strength – it is used on loading ramps, driveways, underground garages, parking lots, terraces, balconies, warehouses, production halls, etc. It may be used as the floor finish or screed beneath the top finishes like: ceramic and stone tiles, epoxy floors and coatings, PVC and carpet floorings, parquet and floor panels.

Main properties:

- limited linear shrinkage,
- easy application,
- applied manually or mechanically.

Main parameters:

- consumption: 20 kg/1 m²/1 cm
- layer thickness: 10-80 mm
- high compressive strength: ≥ 50 N/mm²

What is on the packaging: an exemplary labeling of the calcium sulfate screed in accordance to the EN 13813 standard: CA-C20-F5. This labeling can be found both on the product packaging and in the Declaration of Performance. In ATLAS portfolio: anhydrite screeds called ATLAS SAM

and ATLAS SWS. Three of them: SAM 150, SAM 200 and SWS (SAM 500) can be used in any possible structural floor arrangement. Two others: SAM 55 and SAM 100 (AVAL KN 10) are used mainly to improve the quality and to level the existing screeds.



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CRITERIA FOR SELECTING FLOOR FINISHES AND SCREEDS

The screed and especially the floor top finish must be designed and installed with consideration of its location and the type of load resulting from operation. The choice of material, thickness and structural arrangement should be made taking

into account the required strength parameters, thermal and acoustic issues and conditions under which the material will be used. The basic issues related to the choice of the materials can be classified into one of the following groups:

Place of application (indoors, outdoors).
Type of room (dry, wet). The location of the floor finish or the screed is the basic criteria for the suitable material selection. Outdoors, one may use the cement materials only. This is due to the fact that products based on calcium sulfate are not resistant to moisture. Thus, they cannot be used neither outdoors nor in the wet compartments. Nevertheless, one should check whether a particular cement screed can be used outdoors.

Purpose of a room (residential, production, warehouse). Purpose of a room can determine the type and standard of the floor finish. The cement screed often forms the finishing layer in the utility and auxiliary rooms.

Structural arrangement (bonded, on the separation layer, floating, heating).

The structural arrangement is an important issue, as depending on the adopted arrangement one must use the corresponding recommended layer thickness (you can find more information concerning this issue in ATLAS brochures and data sheets).

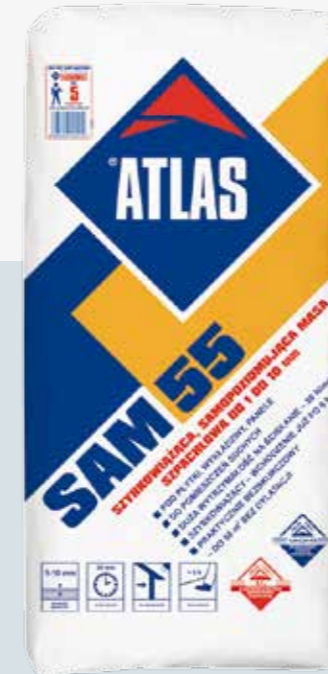
Type of the floor top finish (tiles, floor panels and boards, parquet, epoxy materials, etc.).

The type of the floor finish – the functional layer of the floor – it is important, because it enables to determine the technical parameters for the substrate. For example, there are different parameters for the floor panels, parquet and epoxy materials.

Operational factors.

Operational factors relate to the conditions under which the material will be used. In the utility rooms and the industrial buildings one should consider higher requirements in this regard – e.g. higher chemical resistance, wear (abrasion) resistance, etc.

These guidelines do not release from the obligation to comply with the existing specifications and design documentation for a particular project.



ATLAS SAM 55

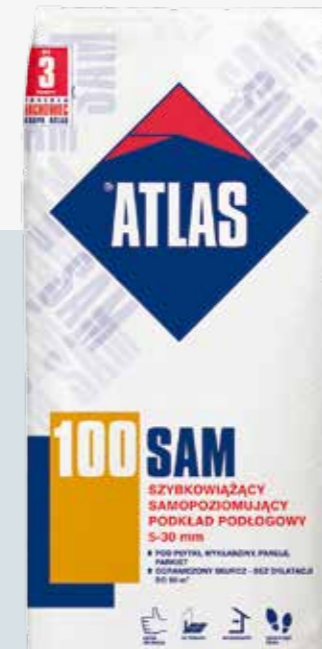
Forms a screed beneath the tiles, PVC and carpet floorings, floor panels in the compartments subject to medium loads – residential buildings, offices, kindergartens, schools.

Main properties:

- anhydrite-gypsum,
- resistant to concentrated load,
- no need of expansion joints for up to 50 m²,
- wide-spread and fast-setting,
- bonded to the substrate.

Main parameters:

- consumption: 18 kg/1 m²/10 mm
- layer thickness: 1-10 mm
- compressive strength: ≥ 30 N/mm²



ATLAS SAM 100

It is recommended for levelling the screeds in dry compartments: rooms, antechambers, halls, living rooms, offices, corridors, waiting rooms etc. It forms a screed beneath the tiles, PVC and carpet floorings, floor panels.

Main properties:

- anhydrite-gypsum,
- resistant to concentrated load,
- no need of expansion joints for up to 50 m²,
- bonded to the substrate.

Main parameters:

- consumption: 20 kg/1 m²/10 mm
- layer thickness: 5-30 mm
- compressive strength: ≥ 35 N/mm²



Installation hints and important differences in comparison to the cement-based products.

SUBSTRATE PREPARATION

On the previous pages we emphasized that the method of the substrate preparation depends on the structural system to be executed. As a reminder here are some helpful principles:

- preparation of the substrate should be done carefully in case of executing bonded screeds or bonded floor top finishes;
- it's the best when the substrate is dry and aged; the stabilization period for cement screeds lasts approx. 28 days since the application, whereas the ageing period for concrete screeds is approx. 3 months since the application;
- the moisture content of the substrate before the application of the successive floor layers should not exceed 3%;
- capillary rising damp is unacceptable;

floor on the ground must be protected with damp proofing course or water vapour barriers;

- substrate must be strong enough – keep in mind the principle of applying the weaker layer onto the stronger one;
- the substrate must be sufficiently stable – especially when we apply a layer on a wooden ceiling or OSB boards;
- clean any coatings which may impair the bonding, e.g. dust, lime, oil, grease, bitumen, paints, weak and loosening elements. Having cleaned the substrate, one can perform local fillings in the points where the substrate is loosened and thuds when tapped. To fill the cavities in the most convenient way, one should use the fast-binding material which is easy to mould, e.g. ATLAS

ZW 330 levelling mortar. Any existing scratches or cracks must be repaired according to their type and size;

- it's crucial to prime the substrate properly. For the absorbent substrates we recommend to use ATLAS UNI-GRUNT PLUS (AVAL KN 97) priming emulsion which limits the substrate absorption. It is a primer designed for floors (horizontal surfaces) only, as due to a micro-molecular structure and low viscosity it assures appropriate penetration into the substrate. Optionally, one may also use ATLAS UNI-GRUNT (AVAL KT 17) diluted with water in 1:1 ratio as the first priming layer. Priming is very important and has two tasks: it limits the possibility of holes formation resulting from air bubbles on the screed surface

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Machine application of the self-levelling screed on an old concrete substrate

and it separates the anhydrite layer from the cement substrate;

- in the case of the arrangement on the separation layer, one applies the 0.2 mm thick PE foil onto the entire substrate. The foil should be spread without folds onto even substrate devoid of protruding or sharp elements. The adjacent strips of foil should be arranged with the overlaps approx. 5 cm wide. Additionally, one can tape the joints with a waterproof tape. The foil should be curled up onto the walls above the designed level of the executed layer.
- when executing the floating screed, i.e. on the layer of thermal or acoustic insulation, one should ensure that the boards are laid on even substrate and they do not move when pressed. To assure this, before placing the boards on the substrate, one can apply a base of dry sand which, properly distributed and compacted, eliminates any local unevenness. The insulation boards are placed in one or two layers with the offset of the edges. Afterwards, one lays the protective layer, e.g. the 0.2 mm thick PE foil, onto them (analogously to the previous description).
- If we arrange the layers with the water heating system, then the heating installation should be properly distributed and securely mounted to the substrate. Prior to the execution of the screed the

tightness test needs to be performed. Note that the heating pipes should be filled with water during works.

EXPANSION JOINTS

Similarly to the cement-based materials, it is obligatory to execute the structural expansion joints which must always go through all the layers of the floor.

One must also apply the perimeter expansion joints (peripheral, insulating), regardless the shape and size of the compartment which they are to be installed in. Their task is to separate the layer permanently from the vertical building elements – walls, columns, stairs, etc. The perimeter expansion joints prevent also against spreading the impact noises and vibrations resulting from the use of other rooms or floors. It is recommended to use the convenient ATLAS self-adhesive expansion joint profiles or, optionally, narrow polystyrene strips approx. 10 mm thick. The anhydrite-based screeds differ from the cement-based ones, where the installation of the intermediate expansion joints (antishrinking, zonal) and dividing the floor into smaller technological areas is crucial.

Materials of this type are practically contractionless within binding process. Thus, one can carry out larger areas in a single action without the need for additional expansion joints within the application area. In case of anhydrite screeds, the expansion joints do not have to be installed on the surfaces smaller than 50 m², in the compartments where the diagonal is shorter

than 10 meters. Similarly to the cement screeds, the technological areas should have a shape similar to a square. Alternatively, the ratio of the sides should not be greater than 2:1. This shape provides the best maintenance conditions for the screed. However, the intermediate expansion joints should be used in places where the shape of the compartment changes, e.g. in rooms of irregular shape, at the room thresholds, at the joints between different building materials.

DETERMINATION OF THE FLOOR LEVEL

At the stage of the material selection we should choose the mortar which enables the floor execution within the designed range of thickness. Prior to the works commencement, one sets the floor level both on the application areas and on the walls. We recommend to use benchmarks to do that. Thanks to the adjustable pin the benchmarks enable to determine the layer of the designed thickness. They are placed in the application area and then, with the use of a long level (2 m), adjusted one by one in order to set the floor plane.

GROUND RULES FOR EXECUTING THE ANHYDRITE SCREEDS

Anhydrite-based floor screeds can be applied both manually and mechanically. Note that the application differs from the one concerning the cement materials which was described previously. Consistency of the mix is always semi-liquid and it enables the self-levelling of the mass.



Machine application of the fast-setting anhydrite-based screeds is a perfect solution for large surfaces (over 15 m²)

MANUAL APPLICATION

The manual application of the screeds is recommended in small compartments (10-15 m²), where the team can execute a layer of certain thickness in a single operation (providing appropriate work organization). In larger rooms, it is required to use the separated technological areas of size mentioned above.

A. The mortar is prepared with the use of a low-speed mixer with a paddle. The dry mix must be mixed with the amount of water listed by the manufacturer.

B. It is recommended to perform a test in order to control the obtained consistency. The test consists in pouring the mortar from a 1-liter-jug onto an even, non-absorbent surface (e.g. covered with a foil) and then measuring the patch obtained. Its diameter should be approx. 45-50 cm. The mortar must be poured in 0.5 m wide strips, starting from the wall furthest from the entrance.

C. The subsequent strips should be applied as soon as possible so that they can join appropriately. Immediately after the application, the mortar should be unified and deaerated with a spike roller (layer thickness of up to 30 mm) or a mesh roller (layer thickness larger than 30 mm). It is important to de-aerate the screed in two perpendicular directions. In case of floors with the heating system, one should perform the de-aeration process using a brush with long hard bristle, led with a vibratory motion along and across the applied layer.

MACHINE APPLICATION

The anhydrite screeds can be applied with a mixing-pumping unit, e.g. a plastering unit with properly adapted equipment (analogously to the cement screeds).

A. In order to prepare the mortar, pour the dry mix from the bag into the intake hopper, from which it gets into the mixing chamber. There, the mortar is mixed with water and then goes to the spiral pump producing pressure necessary to transfer the mortar.

B. The mortar is transferred under-pressure with a hose of a diameter of 35 mm. The appropriate unit adjustment, especially in the terms of the volume of dosed water, is crucial, as it results in the proper mortar consistency. In order to verify the obtained consistency, it is recommended to perform a test similar to the one described above. The diameter of the poured "patch" should be slightly larger (50-55 cm) in view of the manner of preparation and application of the mortar.

C. Commence the work from the corner placed furthest from the room entrance. The mortar is poured from a hose, with strips applied along the walls. The adjacent strips must be applied relatively quickly in order to enable correct mortar joining. Similarly to the manual application, the deaeration process of the freshly applied layer must be performed following the instructions given above. During the work one must ensure appropriate municipal water pressure and proper voltage of the three-phase electric power protected on each phase.

OPTIMUM CONDITIONS

In case of anhydrite-based screed it is required to provide temperature in the range between +5°C and +25°C. The freshly applied screed should be protected from drying too fast, direct sunlight, low air humidity and draughts. The layer drying time depends on its thickness and on the thermal and moisture conditions. The optimum conditions are as follows: temperature of approx. 20°C and relative humidity of 55-60%. If there appears a yellowish or white surface tarnish, it must be removed mechanically, e.g. by grinding, and the whole surface dusted. The removal of the tarnish accelerates the layer drying.

MAINTENANCE

Prior to the further works it is advisable to let the screed dry properly. It is assumed that the layer dries approx. 7 days per 1 cm of the thickness. Nevertheless, it is recommended to check the substrate moisture content again prior to tiling or parquet fixing. The moisture content of the executed layer can be measured with the carbide method (CM), which provides the most precise results, or with an electric meter check. Note that in both cases the measurements are carried out in several points. It is assumed that the maximum residual moisture content for the anhydrite screeds should not exceed 1.5%. In case of using any impermeable finishing materials, e.g. PVC or wooden floorings, one should always follow the manufacturer's instructions in this regard.

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CUT HERE AND SAVE

Cement or Anhydrite? – this is the question.

One of the most frequent question asked by the contractors is where to apply cement screed and where the anhydrite one. Does this discourse lead us to a final settlement? No. Both cement and anhydrite screeds have their pros and cons. Let's take a closer look at them.

Cement and anhydrite – two strong representatives. Both binders bond with the process of hydration with water. Both are mineral. Nevertheless, the difference between them is significant. Cement unlike anhydrite is a binder "resistant" to water and negative temperature. Cement screeds can be used in wet areas (without any restrictions) and outdoors.

From the chemical point of view anhydrite is anhydrous calcium sulfate (CaSO_4) – a binder which is very similar to gypsum (formed by dihydrate calcium sulfate – $2\text{H}_2\text{OCaSO}_4$). Therefore, anhydrite screeds may not be applied outdoors and in wet areas (e.g. in a bathroom). Why? Due to the fact that the screed cannot be poured on a floor where the "water load" is significant.

Cement screed

There can be much to tell about the advantages of the cement screeds. Generally speaking, they are mortars of thick-plastic consistency. Usually we need to add approx. 1.75-3.75

litres of water per 25 kg bag. This makes them an ideal material for forming slopes on terraces and balconies. Furthermore, cement (combined with an appropriate aggregate) provides significantly higher compressive and flexural strength. Thus, cement screeds are strongly recommended in, e.g. industrial, farm and service facilities where higher strength and abrasion resistance are required. In ATLAS portfolio: *Postar 10, Postar 20, Postar 40, Postar 80, Postar 100*

Anhydrite screed

Anhydrite screeds are always manufactured as self-levelling mortars of liquid consistency. One needs to add approx. 4.25-6.25 litres of water per 25 kg bag. Liquid consistency ensures easy manual and machine application. Moreover, it provides perfectly leveled and even screed surface. Therefore, anhydrite screeds are recommended beneath the top floor finishes: panels, PVC flooring and carpets. That is why anhydrite screeds are most often used in the living and office rooms.

Technically anhydrite screed is a non-shrink material. This is an important feature in view of performing the expansion joints. When executing cement screed, the areas divided with expansion joints must not exceed 36 m². On the other hand, in case of anhydrite screed, the adequate areas may have up to 50 m², whereas the diagonal of the room may be up to 10-12 m long. This is due to significantly lower shrinkage of the anhydrite compounds during the bonding process. In ATLAS portfolio: *Sam 150, Sam 200, SWS (Sam 500)*.

Use

Tables 1 and 2 show the advantage of particular screed depending on a feature. We show here conditions of screed use, the most important screeds parameters, as well as the locations in which it is particularly recommended to use one of the screed types. According to manufacturers' technical data sheets both anhydrite and cement based screeds can be used on floors with underfloor heating.

Based on the interpretation of the physical parameters one can draw a conclusion that anhydrite screed is slightly a better heat conductor and that it heats up quicker. It is also important to note that the liquid consistency of anhydrite screeds enables more accurate filling of the spaces between the heating system elements. Anhydrite screed easily "surrounds" the elements of the system. Furthermore, the air voids remaining in the bottom part of the thick-plastic cement screed work as a good insulator, so they limit the heat flow from the system to the substrate.

Surface finishes

The self-levelling surface finishes (both anhydrite and cement) are also screeds types, but they are specific. Their maximum thickness is 30 mm. Moreover, they can be applied only as bonded floors. In case of ATLAS self-levelling surface finishes, regardless of whether they are based on anhydrite or cement, they both can be used indoors only. This results from the recipes of these products. The chemical additives included in the formula provide excellent spreading and quick

setting time. However, they are unfortunately not resistant to outdoor conditions. It is therefore difficult to tell which type of surface finish is in the lead.

Of course all cement finishes may be used in bathrooms and wet rooms. The range of use of both finishes types is similar - they are used for smoothing the existing screeds in order to enable covering them with carpets or parquets. So, there can be only one verdict - a draw. The additional points may be given to the cement finishes due to the fact that they dry faster than the anhydrite ones. Thus, one may apply the finishing top layer sooner. In ATLAS portfolio: *SMS 15, SMS 30, Sam 55, Sam 100, Aval KN 10*

Is it necessary to grind anhydrite finishes? Or is it only required when tarnish appears on the surface. It all depends on whether there appears tarnish* on the finish/screed surface. Tarnish is a thin, cream-colour layer of low resistance. If there is tarnish on the surface, which is not that rare in case of anhydrite-based finishes, the surface must be grinded. Removal of the tarnish accelerates the process of drying. In addition, it accelerates the moisture release. Therefore, the finish reaches its optimum moisture content, so that the works may be continued.

If we use ATLAS Sam 200 screed type then the work may be continued the next day. After one day from the application the mass is hard enough and one can enter the floor surface. However, we still need to be careful – the mass tends to "smear". One solution to this problem is to remove blemish by shearing it with a steel float. However, if we let the entire surface dry, we can solve the problem by grinding the surface – preferably mechanically (tarnish generally bonds slower than the actual compound). There is no rule on the range of strength and work needed – some anhydrite-based products are grinded as easy as polymer finishes and some definitely harder.



*** Tarnish (ettringite)** – a layer which forms a coating in the form of crystalline white needles. However, it does not occur everywhere. It occurs in mortars based on anhydrite, e.g. ATLAS Sam 200 or Portland cement. It works as a bonding activator, the anhydrite slurry would not bond or harden without it. Ettringite is a result of certain chemical reactions. It may increase its volume from 30 up to even 800%, causing delamination, flaking and peeling of the top finish layers.

Original text: Krzysztof Szyszko, ATLAS Group
English text: Piotr Marciniak, Michał Gostłowski, ATLAS GROUP

Table 1: Crucial features of anhydrite and cement screeds - comparison

	Wet rooms	Size of areas between expansion joints	Layer evenness and smoothness	Easy in application	Strength	Abrasion resistance
Advantage of anhydrite		X	X	X		
Advantage of cement	X				X	X

Table 2: Use of anhydrite and cement screeds - comparison

	Slope layer on balconies and terraces	Underfloor heating	Outdoor use
Advantage of anhydrite		X	
Advantage of cement	X		X

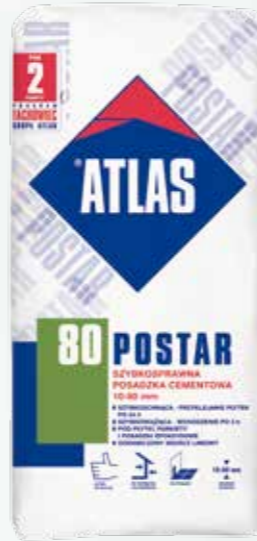
ATLAS POSTAR 80 (10 - 80 mm) fast-setting cement floor

Use

Screed or floor 10 up to 80 mm thick - the layer thickness depends on the expected structural arrangement (check data sheet). Recommended for quick repairs - fast-setting - rapidly reaches the operational parameters, therefore the technological breaks are shorter and application of subsequent layers quicker: foot traffic just after 3 hours; fixing the tiles - just after 24 hours. May be used as a screed for finishing flooring layers, such as: wooden floor (parquet) or epoxy floors - characterised by high cohesion and resistance to setting forces, which occur within the joint with flooring layer, e.g. during expansion and contraction of wood resulting from the changes of humidity. Forms floor characterised by high abrasion resistance - recommended for residential housing, warehouses, industrial premises, on driveways, terraces, etc. Can be installed as screed with heating system - does not require elastifying admixtures, conducts heat well. Enables forming a slope and repairs of concrete surfaces, stairs, slabs, floors.

Properties

Fast-drying - the residual moisture content below 2.6% for screed approx. 4 cm thick after 24 hours since application (in standard conditions). **Fast setting** - rapid strength build up within the first day of setting. **Thick plasticity** - mortar consistency makes it easy to spread, float and to form even surface. **Compressive strength:** $\geq 40.0 \text{ N/mm}^2$ - recommended for any surfaces exposed to medium and high load. **Flexural strength:** $\geq 7.0 \text{ N/mm}^2$. **Abrasion resistance:** $\leq 9.5 \text{ cm}^3/50 \text{ mm}^2$ - acc. to Bohme. **Low linear shrinkage** - minimum changes in linear dimensions during screed drying (approx. 0.6 mm/rm) limit the risk of cracking.



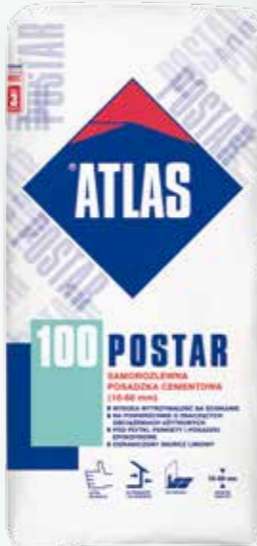
ATLAS POSTAR 100 (10 - 80 mm) self-spreading cement floor

Use

Levels surfaces within 10 - 80 mm thickness range - layer thickness depends on the expected structural arrangement. For levelling local irregularities as well as large scale flooring with slope. Forms floor of high strength - recommended for loading ramps, driveways, underground car parks, terraces, balconies, warehouses, etc. Can form top flooring layer as well as screed for other finishing materials. Can be installed as screed with heating system - does not require elastifying admixtures, conducts heat well. Can form screed for top flooring layers, e.g. parquet, epoxy floors and coats - characterised by high cohesion and resistance to setting forces, which occur within the joint with flooring layer, e.g. during expansion and contraction of wood resulting from the changes of humidity.

Properties

Perfect spreadability - enables execution of horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby. **Compressive strength:** $\geq 50.0 \text{ N/mm}^2$. **Flexural strength:** $\geq 7.0 \text{ N/mm}^2$. **Low linear shrinkage** - minimum changes in linear dimensions during screed drying (approx. 0.6 mm/rm) limit the risk of cracking. **Suitable for machine application** - easy and quick flooring even in large rooms.



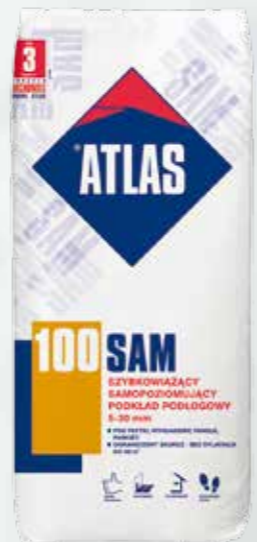
ATLAS SAM 100 (5 - 30 mm) self-levelling screed

Use

Levels surfaces within 5 - 30 mm thickness range - both when substrate has local irregularities and when it is whole executed with slight slope. Elevates floor level in the whole room - e.g. when necessary to equalize the level of two adjacent rooms. Recommended for levelling surfaces of existing screeds with heating systems - when screed irregularities make the execution of top finish impossible and additional thin layer of compound must be applied. Can be used in dry rooms - as the screed based on high quality anhydrite, it can only be used indoors in dry rooms: in living rooms, hallways, halls, salons, offices, corridors, waiting rooms, etc. Forms screed beneath top finishes in rooms exposed to medium load - in offices, kindergartens, schools, etc. Types of possible arrangements - bonded - thickness 5 - 30 mm - on good quality substrates, e.g. concrete, cement or anhydrite screed (with or without floor heating).

Properties

Self-spreading - enables execution of smooth horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby. **Fast-setting** - rapid strength build-up enables foot traffic just after 6 hours since the compound application. **Compressive strength:** $\geq 35.0 \text{ N/mm}^2$. **Flexural strength:** $\geq 6.0 \text{ N/mm}^2$. **Limited contraction** - reduced to minimum possibility of shrinkage cracks during setting, which enables application on areas up to 50 m² large without expansion joints. **Suitable for manual and machine application** - can be easily and quickly applied both manually and with machines equipped with helical pumps, therefore high efficiency is reached.



ATLAS SMS 15 (1-15 mm) fast setting, self-levelling compound

Use

Levels surfaces within 1 - 15 mm thickness range - both when substrate has only local irregularities and when it is whole executed with slight slope. Elevates floor level in the whole room - e.g. when necessary to equalize the level of two adjacent rooms. Can be used in rooms, antechambers, halls, living rooms, offices, corridors, waiting rooms, kitchens and bathrooms. Recommended for levelling surfaces of existing screeds with heating systems - when screed irregularities make the execution of top finish impossible and additional thin layer of compound must be applied. Forms very smooth surface after application - particularly recommended as smoothing layer for screeds installed under carpet flooring. Types of possible arrangements - bonded - thickness 1 - 15 mm - on good quality substrates, e.g. concrete, cement screed (with or without floor heating).

Properties

Perfect spreading - enables execution of horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby. **Fast-setting** - rapid strength build-up enables foot traffic just after 4 hours since the compound application. **Compressive strength:** $\geq 25.0 \text{ N/mm}^2$. **Flexural strength:** $\geq 7.0 \text{ N/mm}^2$. **Very low linear shrinkage** - minimum changes in linear dimensions during screed drying ($\leq 0.6 \text{ mm/rm}$) limit the risk of cracking and loosening of weak substrates (of low cohesion). **Suitable for manual and machine application** - can be easily and quickly applied both manually and with machines equipped with helical pumps, therefore high efficiency is reached.



ATLAS SMS 30 (3-30 mm) fast setting, self-levelling screed

Use

Levels surfaces within 3 - 30 mm thickness range - both when substrate has only local irregularities and when it is whole executed with slight slope. Elevates floor level in the whole room - e.g. when necessary to equalize the level of two adjacent rooms. Can be used in dry rooms - in living rooms, antechambers, halls, offices, corridors, waiting rooms, etc. Can be used in rooms of higher humidity, e.g. house bathrooms. Recommended as a screed under carpet flooring in offices, kindergartens, schools, apartments, etc. - owing to smooth surface and fine aggregate. Types of finishing layers - tiles, PVC and carpet flooring, floor panels, parquet. Types of possible arrangements - bonded - thickness 3 - 30 mm - on good quality substrates, e.g. concrete, cement or anhydrite screed (with or without floor heating).

Properties

Perfect spreading - enables execution of smooth horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby. **Fast-setting** - rapid strength build-up enables foot traffic just after 4 hours since the since application. **Compressive strength:** $\geq 30.0 \text{ N/mm}^2$. **Flexural strength:** $\geq 7.0 \text{ N/mm}^2$. **Very low linear shrinkage** - minimum changes in linear dimensions during screed drying ($\leq 0.6 \text{ mm/rm}$) limit the risk of cracking and loosening of weak substrates (of low cohesion). **Suitable for manual and machine application** - can be easily and quickly applied both manually and with machines equipped with helical pumps, therefore high efficiency is reached.



ATLAS SAM 55 (1-10 mm) fast setting, self-levelling compound

Use







Levels surfaces within 1 - 10 mm thickness range - both when substrate has only local irregularities and when it is whole executed with slight slope. Elevates floor level in the whole room - e.g. when necessary to equalize the level of two adjacent rooms. Recommended for levelling surfaces of existing screeds with heating systems - when screed irregularities make the execution of top finish impossible and additional thin layer of compound must be applied. Can be used in dry rooms - as the screed based on high quality anhydrite, it can only be used indoors in dry rooms: in living rooms, hallways, halls, salons, offices, corridors, waiting rooms, etc. Forms screed beneath top finishes in rooms exposed to medium load - in offices, kindergartens, schools, etc. Types of finishing layers - tiles, PVC and carpet flooring, floor panels. Types of possible arrangements - bonded - thickness 1 - 10 mm - on good quality substrates, e.g. concrete, cement or anhydrite screed (with or without floor heating).


Properties

Self-spreading - enables execution of smooth horizontal surfaces even in large rooms, with no use of battens and mass raking up with a darby. **Fast-setting** - rapid strength build-up enables foot traffic just after 6 hours since the compound application. **Compressive strength:** $\geq 30.0 \text{ N/mm}^2$. **Flexural strength:** $\geq 5.0 \text{ N/mm}^2$. **Limited contraction** - reduced to minimum possibility of shrinkage cracks during setting, which enables application on areas up to 50 m² large without expansion joints. **Suitable for manual and machine application** - can be easily and quickly applied both manually and with machines equipped with helical pumps, therefore high efficiency is reached.



LEVELLING FLOOR COMPOUNDS

PRODUCT							
	ATLAS SAM 55	ATLAS SAM 100/ AVAL KN 10	ATLAS SAM 150	ATLAS SAM 200	ATLAS SWS/ ATLAS SAM 500	ATLAS SMS 15	ATLAS SMS 30
Reference document	PN-EN 13813:2003						
Classification	CA-C30-F5	CA-C35-F6	CA-C20-F5	CA-C16-F5	CA-C20-F4	CT-C25-F7	CT-C30-F7
TECHNICAL DATA							
Self-spreading	✓	✓	✓	✓	✓	✓	✓
Layer thickness [mm]	1-10	5-30	15-60	25-60	20-60	1-15	3-30
Mixing ratio water/dry mix [l/ 25 kg]	5.0-6.25	5.0-5.5	4.0 - 4.75	4.25-4.75	5.00-5.25	5.0-5.25	5.00-5.50
Consumption for 1 cm thickness [kg/m ²]	18	20	20	20	18	16.6	16.5
Compressive strength [N/mm ²]	≥30	≥35	≥20	≥16	≥20	≥25	≥30
Flexural strength [N/mm ²]	≥5	≥6	≥5	≥5	≥4	≥7	≥7
Abrasion resistance acc. to Bohm method							
Linear contraction [%]	< 0.03	< 0.03	< 0.03	< 0.03	< 0.05	<0.06	< 0.06
Foot traffic [h]	6	6	6	48	6	4	4
Tiles fixing [days]	3	14-21	21-28	21-28	21-28	1	1
Parquet fixing [days]		21-28				7	7
Installation of panels or carpet flooring [days]	7-10	21-28	21-28	21-28	21-28	7	7
Start of heating (in screeds with heating) [days]			28	28	7		
Manual application	✓	✓	✓	✓	✓	✓	✓
Machine application (mixing-and-pumping units)	✓	✓	✓	✓	✓	✓	✓
SCREED TYPE							
Bonded	✓	✓	✓	✓	✓	✓	✓
On separation layer			✓	✓	✓		
Floating			✓	✓	✓		
With heating system			✓	✓	✓		
USE IN FLOOR STRUCTURE							
Smoothing layer	✓	✓				✓	✓
PLACE OF APPLICATION							
Indoors - dry	✓	✓	✓	✓	✓	✓	✓
Indoors - wet						✓	✓

PRODUCT					
	ATLAS POSTAR 10	ATLAS POSTAR 20	ATLAS POSTAR 40	ATLAS POSTAR 80	ATLAS POSTAR 100
Reference document	PN-EN 13813:2003				
Classification	CT-C25-F5-A15	CT-C20-F4	CT-C30-F6-A22	CT-C40-F7-A12	CT-C50-F7-A15
TECHNICAL DATA					
Self-spreading					✓
Thickness [mm]	10-100	10-80	10-80	10-80	10-80
Mixing ratio water/dry mix [l/ 25 kg]	2.25-3.00	2.75	2.00-3.75	2.00	3.25-3.75
Consumption for 1 cm thickness [kg/m ²]	20	20	20	20	20
Compressive strength [N/mm ²]	≥25	≥20	≥30	≥40	≥50
Flexural strength [N/mm ²]	≥5	≥4	≥6	≥7	≥7
Böhme abrasion resistance - class	A15		A22	A12	A15
Linear contraction [%]	<0.06	<0.06	<0.08	<0.06	<0.06
Floor access/ foot traffic [h]	24	24	24	3	24
Fixing the tiles [days]	14	1	21-28	1	21-28
Parquet installation [days]	21-28		21-28	7	21
Installation of panels or carpets [days]	21-28	14	21-28	7	21-28
Application of epoxy coat [days]	21-28		21-28	7	21-28
Start of heating (for screeds with heating) [days]	7	7	7	7	7
Manual application	✓	✓	✓	✓	✓
Machine application					✓
SCREED TYPE					
Bonded	✓	✓	✓	✓	✓
On separation layer	✓	✓	✓	✓	✓
Floating	✓	✓	✓	✓	✓
With heating system	✓	✓	✓	✓	✓
USE IN FLOOR STRUCTURE					
Top floor	✓		✓	✓	✓
PLACE OF APPLICATION					
Indoors - dry	✓	✓	✓	✓	✓
Indoors - wet	✓	✓	✓	✓	✓
Outdoors	✓	✓	✓	✓	✓

BUILDING

MATERIALS

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Pouring self-levelling compound – AVAL KN 10

AVAL KN 10 is a self-levelling anhydrite jointless floor suitable for mechanical and manual rough floor making under terracotta, wood flooring and various floor covering. It is suitable for all kinds of dry residential buildings, public buildings and other places provided that its parameters comply with utilisation and strength properties of such locations. AVAL KN 10 can be used only as connected jointless floor. It can also be used as the levelling layer on floor heating systems. It can be used only for indoor use with bed thickness from 0.5 to 3.0 cm.

Estimation conditions

- materials are delivered on site
- internal transport horizontal and vertical is included in the average building situation
- calculation of materials includes an allowance for waste
- water, electricity, and small amount of materials are added with 1.5% rate calculated from basic materials

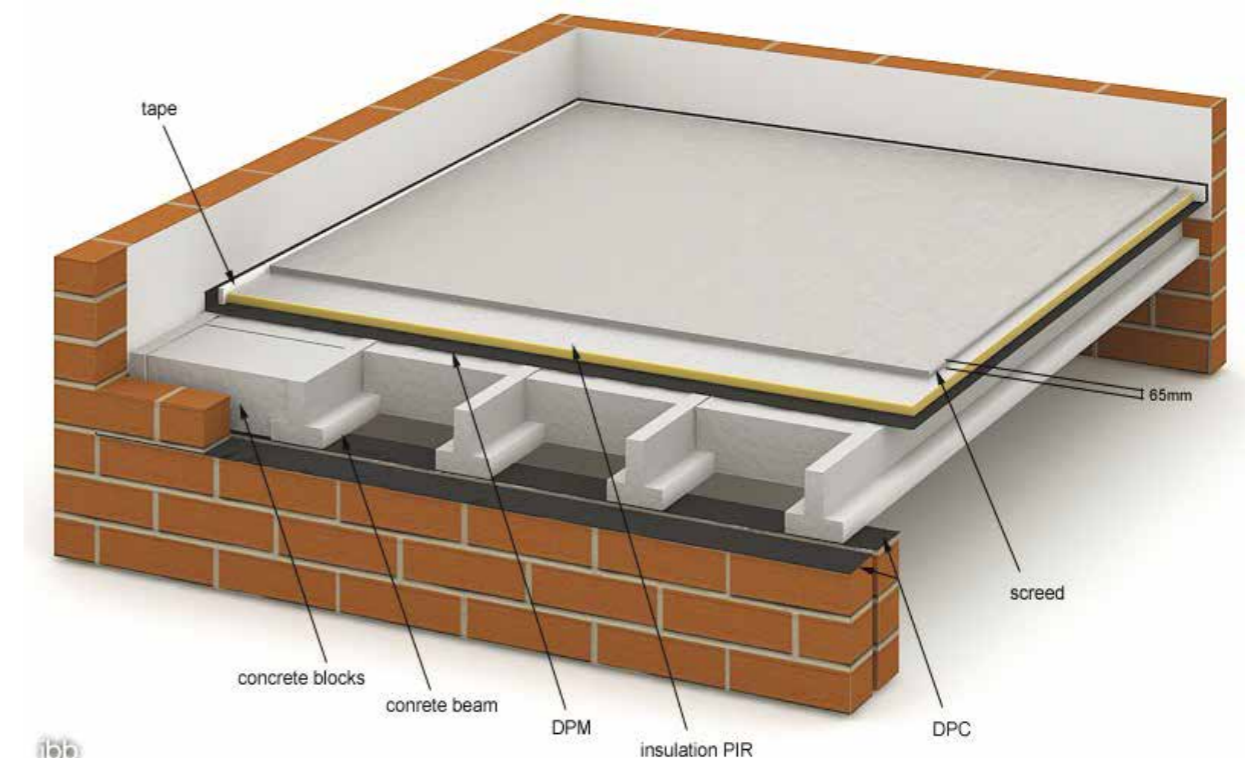
Sequece of operation

- clean substrate from dust and debris
- priming substrate
- fixing expansion tapes
- mixing powder compound with water
- pouring self-levelling compound
- de-aerate compound using spike roller

Coverage of materials for 10mm levelling 10sqm of floor

No	Material	Unit	Price* excl VAT [pcs]	Coverage	Q-ty	Price excl. VAT	Price incl. VAT
1	Primer AVAL KT 17, bucket 5kg	5 kg	£11.25	0.10 kg/sqm	10m	£ 2.30/sqm	£2.76/sqm
2	Expansion tape 70mm hight	m	£ 0.46	1.05 m/m	10m	£ 4.80/sqm	£5.76/sqm
3	Self-levelling compound AVAL KN 10, bag 25kg	bag	£11.25	2.00 kg/mm	10mm*10m	£ 90.00/sqm	£108.00/sqm
TOTAL						£ 97.10/sqm	£116.52/sqm

*products available at above prices in all IBB Polish Building Wholesale branches – retail prices before discounts



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Expenditure of Labour for levelling 1sqm of floor

No	Description	Labour hours	Rate excl. VAT [GBP]	Cost [GBP] excl. VAT*	Cost [GBP] incl. VAT
1	Priming floor	0.12 lh/sqm	£35	£ 4.20/sqm	£ 5.04/sqm
2	Fixing expansion tape	0.08 lh/m	£35	£ 2.80/m	£ 3.36/m
3	Pouring self-levelling compound	0.50 lh/sqm/10mm	£35	£ 17.50/sqm	£ 21.00/sqm

Important:

- pour dry mortar into a container with suitable amount of water (in the ratio of 5.7÷6.0 l of water for 30 kg of container) and mix until homogenous; do it mechanically; a drill with a mixer is recommended
- compound can be poured manually, but only on surfaces divided into technological fields that enable pouring each area within 30 minutes
- the substrate should be dry and free from anything that may impede adhesion, in particular dust, dirt, lime, oil, fat, wax, bitumen, paint, etc
- separate the jointless floor from walls and other elements within the pouring area using expansion tapes
- right after pouring in each field, de-aerate the material using a de-aerating roller or a brush with long hard horsehair, moving the brush in shaking manner along and across the poured surface

Usefull tools:Expansion joint tape
70mm high

£0.46 net/m



Venting roller

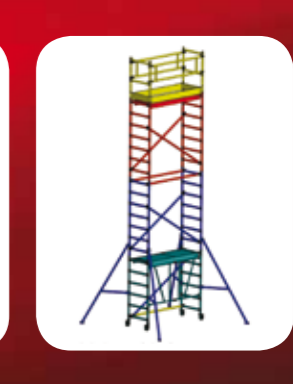
£9.92 net

Venting soles 9910
£19.92 net**Attention!**

Our norms and rates should be taken as a guide only and there are no obligations for anybody to follow them. You have to take sole responsibility and apply your own rates to your quotations. Cost of materials may vary from prices shown. We cannot accept any responsibility for anyone using this information – you must make your own checks.

CUT HERE AND SAVE

QUALITY ALUMINIUM LADDERS & SCAFFOLD TOWERS

Multifunctional,
telescopic TELES.T4SThree elements
ladder ST350/3NThree elements
ladder AK225.3Aluminium
ladder PLS3Scaffold COMPACT
packet A+B+C+D

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PKO Szczecin Open 2016

This summer IBB Polish Building Wholesale sponsored tennis challenger tournament in Poland - PKO SZCZECIN OPEN 2016

The 24th edition of the Pekao Szczecin Open challenger tournament took place between September 10th and 18th, on the Promasters' clay courts, on the Wojska Polskiego 127 av. in Szczecin. The tournament is organized yearly since 1993. At the beginning it was a satellite tournament, with 25.000 \$ in prize money and since 1996 Pekao Szczecin Open is a challenger tournament. Since 1997, Pekao Szczecin Open offers 125.000\$ in prize money + hospitality (free accommodation and board for the players). The tournament is a licensed ATP Challenger event. Bank Pekao joint-

stock company and a city of Szczecin are the main sponsors.

Players Granollers, Marcel FRA (ATP 45) and Ambroży, Filip (ATP) both were sponsored by IBB Polish Building Wholesale. Fans could watch them both in single matches and playing together in tennis double.

Amongst others were Cervantes, Inigo ESP (ATP 74), Brown, Dustin GER (ATP 87), Albot, Radu MDA (ATP 98), Basilashvili, Nikoloz GEO (ATP 102), Gabashvili, Teymuraz RUS (ATP 106), Eysseric Jonathan FRA (ATP 127), Montanes, Albert ESP (ATP 135), Cecchinato, Marco ITA (ATP 137), Lestienne, Constant FRA (ATP 166), Gaio, Federico ITA (ATP 169), Bourgue, Mathias FRA (ATP 189), Napolitano, Stefano (ATP 227), Janowicz, Jerzy POL (ATP 228), Michon, Axel FRA (ATP 231), Santillan, Akira JPN (ATP 244), Giannessi, Alessandro ITA (ATP 247), Kolar, Zdenek CZE (ATP



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DOUBLES IBB

1



Marcel Granollers Pujol

Marcel Granollers Pujol is the Spanish tennis player. The highest ranking in his career - No. 19 in singles in July 2012, in doubles No. 4 in February 2013, the current ATP ranking as of 29-08-2016 - 45 in singles and No.31 in doubles.

Age: 30, 12 April 1986 **Height:** 190 cm **Weight:** 77 kg
Turned pro: 2003 **Prize money:** 8,15 mln USD

2



Filip Ambroży

Filip Ambroży was born in Szczecin. He has been playing tennis since the age of 6 years. He began training in Poland, continued in the UK, currently trains in Spain. Planned ATP ranking - No.1 :)

Age: 16, 22 August 2000 **Height:** 177cm **Weight:** 56 kg **Turned pro:** soon **Prize money:** 400,- USD

259), Mertl, Jan CZE (ATP 266), Sakharov, Gleb FRA (ATP 274), Sonogo, Lorenzo ITA (ATP 277), Eremin, Edoardo ITA (ATP 300), Vatutin, Alexey RUS (ATP 303), TOREBKO, Peter GER (ATP 339), PRZYSIĘŻNY, Michał POL (ATP 344), Caruso, Salvatore ITA (ATP 355), MICHNEV, Petr CZE (ATP 416), RUUD, Christian NOR (ATP 450), CIAŚ, Paweł POL (ATP 456), REISTER, Julien GER (ATP 650), IVANOV, Vladimir EST (ATP 690), Westerhof, Boy NED (ATP 897)

Alessandro Giannessi was unrivaled this year. He walked with confidence from victory to victory, he didn't lost even one set and absolutely deservedly the title of our challenger. Sunday's finale began, as most spectators expectet, with Brown keeping the lead. German has served two aces and easily won to zero. Another gem is fierce, lasting ten minutes, which eventually came out victorious for Italian player. And it is this moment that can be considered a breakthrough



Andrzej Szkości



for the fate of the match. From now on the court has been ruled by Giannessi. Italian player answered almost every shot, successfully defended himself from the vicinity of the end line and patiently waited for rivals error. They've increased every minute. In the first set Brown won only one more gem (2: 6), the second wasn't much better. Giannessi again twice picked up a rival serve, he did not lose a single service gem and finally won 6: 2, 6: 3. The final match of Pekao Szczecin Open 2016 lasted exactly an hour.

- It was just a perfect match in my performance - said a match winner - The last few weeks were very good for me and I feel that I finally caught the appropriate form. I've made a solid performance in the US Open, and the match with Stan Wawrinka, although I eventually lost, stood at a very high level.

For Giannessiego victory in Szczecin is particularly important and gives great cause for satisfaction. - This is my first title, so no wonder I'm so happy. Throughout the week everything went my way. I feel that I played very well and I feel that I deserve this trophy, and it's really a wonderful feeling.

- Two times I was here in the finals of doubles and never had a chance to win. Now won the title in singles, so I can say that three times lucky. Thanks to everyone who put their hands to organize this wonderful tournament and I hope to see you here next year!

Dustin Brown, PKO Szczecin Open champion from two years ago, did not play the best match, but the journey to the finals allowed him to move up in the ranking to the highest position in the career. - Alessandro played really well today and fully deserved win. Sometimes it is so that you come out on the court, but the opponent is much better this day. I have to accept this defeat and congratulate him warmly - concluded Brown.

In this year edition of PKO Szczecin Open, for the first time Italian player triumphed in the tournament! This time the matches from the stands was watched by a total of up to 25 000 people!

Source: www.pkoszczecinopen.pl

New historic theme of IBB Polonia London Volleyball Club shirts

For the second consecutive season, the IBB Polonia London kit will include a commemorative design symbolising the shared Polish and British history. Last year, a white-and-red checkerboard on the back marked the 75th anniversary of the Battle of Britain, where Polish pilots formed the second largest contingent after the British. In 2016/17, Polonia's shirt will feature the diving eagle emblem of the Polish paratrooper unit the Silent Unseen. History of Polish-British cooperation will be visible throughout the league, cup and CEV Challenge Cup matches. We are very grateful to the Polish Embassy in London for supporting this project.

"We are very proud to be one of Polonia London's partners and look forward to continuing our cooperation in season 2016/17. Sport is one of the key areas of public diplomacy, through which the Embassy hopes to showcase Poland in Britain, engage with the community, promote inclusion and mutual respect. By developing a loyal and committed fan base, Polonia London have significantly contributed to the promotion of Polish culture and sport in the United Kingdom. Therefore, we are very happy that the emblem of the Silent Unseen will be displayed on the players' new shirts as a continuation of the initiative started last year with the commemoration of the Polish contribution to the Battle of Britain. Cichociemni's legacy is a brilliant example of Polish-British cooperation, and this project allows us to build a bridge



between our shared past and present. We wish the team every success in the English League and the European championships. Go Polonia!". commented Ambassador Arkady Rzegocki.

"Representing the Polish/British alliance is an honour for us. Playing with the paratroopers badge on our shirts ensures that the combined work between the two countries will not be forgotten. We want to show respect for both nations, shared history and sport are important issues for the society, and strengthening ties between the two areas is key for us. We are really honoured that we will be able to commemorate the Silent and Unseen when we play. They are an inspiration for us and allow us to strengthen international relations. We know that the soldiers used to play volleyball in their down-time for exercise and for relaxation. Our volleyball is more intense, but we are motivated knowing that we have that in common with them. Now the time has come for us to continue our combined history". said Bartek Luszcz IBB Polonia London Chairman

The Silent Unseen (in Polish Cichociemni) were an elite paratrooper unit of the Polish Army, who trained with the support of the British Special Operations Executive (SOE) in bases across the United Kingdom. The brave volunteers were parachuted into German-occupied Poland under the cover of darkness to support the secret operations and partisan warfare of the Home Army. Out of 316 Cichociemni who attempted to reach Poland, 103 perished in the war and further nine were murdered by the communist regime of post-war Poland. In December 2015, the Polish Parliament declared 2016 the Year of the Silent Unseen, to mark the 75th anniversary of the first jump. The diving eagle emblem was designed by Marian Walentynowicz in June 1941, and is currently used by "GROM" - the elite special forces unit of the Polish Army continuing Cichociemni's legacy.

IBB Polonia London is a current English Champion and English Cup holder and in 2016 the club will participate in the CEV Challenge Cup as a first club in English League.



IBB POLONIA VC
COOL GADGETS
FOR OUR SUPPORTERS



IBB Polonia London at the Warsaw tournament

On the weekend 9-11 September IBB Polonia London took part in the City Volley Cup tournament organised by the volleyball section of the sports club Legia Warsaw. It was a three day opportunity to test some players and ideas before the start of the domestic Super 8 League which begins 24th September.

The teams taking part, apart from IBB Polonia London, were Legia Warsaw, Lesan Halinow and VK Ostrava. In the end the tournament winners were from the Czech Republic who didn't lose a single match.

- I'm really pleased we could take part in this event - said IBB Polonia London Coach Piotr Graban. - It was a great opportunity to play lots of sets and experiment before the advent of the 2016/17 season. It was the first time to get the squad together. It was a chance to assess our current level. It allowed us to certainly raise our level and also to figure out which elements we are good at and where we must focus our attention in training. I'd like to thank the organisers of the tournament for our invitation and I hope that in a year we will travel to Warsaw again.

- The tournament is a great opportunity for the whole club to gain some Polish know-how - said Chairman Bartek Łuszcz. - Thanks to initiatives such as this we continue to learn from the best and can transfer the ideas to England. As a result the league will continue to develop and attract more players, spectators and media. The trip to Poland allowed us to develop our working relationships with the Polish Volleyball Federation, which will have a direct influence on the sport's popularity in the UK.



Grzegorz Samonaj

- Visit in Warsaw enabled me to learn more about the team. I have seen their engagement, optimism and sacrifice. - said the representative The Polish Bakery (Wembley), one of the sponsors who joined the team in Warsaw - Tournament proved that the decision about starting the cooperation was good. We share the same values and aims - team work, fair competition and perfectionism. I hope the effects of our co-work will turn out positive for both of us.

This was the second time the tournament had invited the current English champions. MVP of IBB Polonia London was voted as the captain - Marius Ciortea.

- IBB Polonia - VK Ostrava 0:3**
- IBB Polonia - Legia Warsaw 2:3**
- IBB Polonia - Lesan Halinow 1:3**

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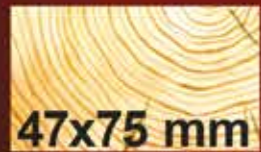
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IBB POLONIA FC

To inspire and develop Young Footballing boys or girls.

IBB Polonia London FC began its first ever training session in September 2016. This is a new club under the umbrella of the champions of English volleyball - IBB Polonia London VC. The volleyball club will support its football division using its sporting experience and knowledge. Gregory Niski, the Director of Sport of the football section is optimistically approaching the new season.

How can you sum up the first sessions of the new sporting section of IBB Polonia London?

Niski replied, that the start has looked very promising. There are lots of children coming training each week. We currently have two training squads, but we are aiming for four in total. Under 7,8,9 and 10 age groups. We anticipate that the interest in our new initiative will continue to grow.

Are you receiving many enquiries about the club at this stage?

In response Niski said that all of the promotional work being done is bearing fruit. We are constantly seeing new faces. We have received emails, phone calls and a constant steady stream of enquiries about registering of new children. You can see lots of interest in our section. The biggest draw is being part of IBB Polonia London Volleyball Club. we want to

continue the successes of the volleyball team on our football pitches. We are able to say that everything is being organised in a very professional way, with everything planned out very carefully. my aim is for the football section to be playing at a very high level and eventually for our players to play under professional contracts either in the UK or abroad.

So who will be coaching these sessions?

G.N.: We have two very gifted coaches, who have many years of experience. The younger children will work with Marcin Wanota and the older with Pawel Jurgielewicz. The coaches are dedicated to their work and their passion is infectious! For them, the most important assets are the players, their progress and the fun that they have.

Are the groups mixed?

G.N.: Trainings are for girls as much as boys where the divisional rules allow for mixed competitions. The first trainings were totally male, but we are aiming to encourage girls to join us.

When will recruiting start for the new children?

G.N.: Recruitment is a continual process. Anyone interested is able to join at any point and start training. The only date on the calendar is the 26th of September by which time we must have registered with the Harrow Youth Football League. There is no issue about players joining us later being able to play in the league (provided that they are good enough).

Where will the trainings take place?

G.N.: The training and matches will be held in Shepherd's Bush. It doesn't matter where the players live, they can join us if they can get to West London. We are trying to be flexible with our approach



**New t-shirts
for 2016/2017 season**

to allow as many people to take part as possible. If there are enough interested players from another part of London, we are able to relocate to help accommodate more people. Once we have made our final selections, the players must be able to access Shepherd's Bush twice each week for training.

Where can people find out further information about the club?

G.N.: We have a new website: www.poloniafc.com. We also have a Facebook profile on IBB Polonia Football Club. All important information will appear on both places. I'd also encourage people to browse the internet. To this date, potsportsport.pl, TVP Halo Polonia have also featured us. I'm hoping that, step by step, there will be lots of publicity about the new section of IBB Polonia London.

I imagine there is a lot of competition between football academies in London.

G.N.: Yes, you are correct. There is a lot of competition. There are many Polish football clubs, and there are countless English ones. Our coaches, however, have lots of experience and success in various competitions. So long as our players are better than the opposition, then that means things are going in the right direction.

So is IBB Polonia FC a unique club?

G.N.: I think the coaches experiences and successes are a good indicator that they have been working well. And also that their charges are making good progress. An experienced coach with the appropriate approach is the key to club results. It is exactly this sort of coach that IBB Polonia FC is proud to have. It's also a legendary name that

everyone should be proud to be part of. A name that for the last 40 years has proudly represented Poland in the UK.

Are the trainings just playing about, or are you developing professionalism? Do the children learn qualities other than football?

G.N.: We have a professional approach and are aiming to develop each individual for the future. The players have a specific goal. The majority want to be the next Ronaldo or Messi! They are very active and focussed, they often arrive early to start kicking the ball, to start training. These players don't need external motivation. They know what they want. We are developing their skills. The coaches transfer their knowledge to the players and model a healthy lifestyle. The players are reminded about healthy diets and that rest and sleep are also important. Training camps are great ways to teach these ideas. There will be a variety of trips arranged for the children. We are aiming for 3 trips each year where skills can be practiced and healthy living will be taught. This is an integral part of the lifestyle of any elite sports person.

Where will these trips be to?

G.N.: We are currently thinking of trips to Poland, but nowhere is out of the question. We will aim for locations that fulfil all of our requirements and will benefit the children as much as possible. There will be friendly games with local opponents.

Will parents be reassured that sending their children to a club like this is a good investment?

G.N.: Definitely. The coaches are well prepared and qualified and the Academy is of a high standard. I am a good example of this myself. When my son didn't make much progress training in an English club, I decided to make a change and met Pawel Jurgelewicz, one of the current IBB Polonia London coaches. After two years under his guidance, I can see a huge improvement in my son's ability and level of play. That's why I am so happy IBB Polonia FC will have his knowledge.

What are the specific aims of the season?

G.N.: The main thing is for the children to be happy and to improve their level. For them to develop and mature and to win games. It's obvious that in sport that defeats can be expected from time to time. We want to attract new children and to develop new age groups to promote the good name of IBB Polonia London. We want to assure everyone of total professionalism at all raining sessions, tournaments and training camps. These are the most important goals for us; for the children to also feel happy and part of a team.



Ewa Laskowska

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NEWS 1

The summary of the transfer window 2016/17

The most for the summer transfer window was spent by Manchester - the first place was taken by The Citizens (213.00 million) and the other Red Devils (185.00 million). On the third position was Juventus (162.50 million).

- | | |
|-------------------------------------|------------------------------------|
| 1. Manchester City - 213,00 mln € | 11. Atletico Madryt - 81,00 mln € |
| 2. Manchester United - 185,00 mln € | 12. Liverpool - 79,90 mln € |
| 3. Juventus - 162,50 mln € | 13. SSC Napoli - 78,50 mln € |
| 4. Chelsea - 141,30 mln € | 14. Leicester City - 77,50 mln € |
| 5. FC Barcelona - 122,75 mln € | 15. PSG - 75,60 mln € |
| 6. Arsenal - 116,50 mln € | 16. Bayern Monachium - 70,00 mln € |
| 7. Inter Mediolan - 115,30 mln € | 17. Watford - 67,55 mln € |
| 8. Borussia Dortmund - 109,75 mln € | 18. Newcastle - 64,40 mln € |
| 9. AS Roma - 98,10 mln € | 19. West Ham United - 62,30 mln € |
| 10. Tottenham - 82,50 mln € | 20. Sevilla - 61,20 mln € |

NEWS 2

Legia Warsaw lost 6-0 on their first Champion League match

Legia Warsaw, for the first time in 20 years reached the Champions League. On their first match with Borussia Dortmund, Legia lost 6-0. Dortmund dominated from the beginning with Goetze first goal after just seven minutes. Sokratis Papastathopoulos and Marc Bartra scored within the next 10 minutes. Dortmund visibly slowed their attacks in the second half but still scored another three goals through Raphael Guerreiro,

Gonzalo Castro and star striker Pierre-Emerick Aubameyang. In the first half, a group of hooligans wearing balaclavas tried to break into the Dortmund sector from Legia's side and ended up fighting and spraying gas at the security guards. UEFA has opened disciplinary proceedings in connection with the riots that occurred in the stands. The decision of the penalties will be made on 28 September.

The charges against the Legia Warsaw:

- Riots in the stands
- Firing pyrotechnics
- Throwing objects
- Insufficient organisation
- Racist behaviour
- Blocking staircases

The charges against Borussia:

- Throwing objects
- Firing pyrotechnics



2016 - 2017

UEFA Champions League Group Stage

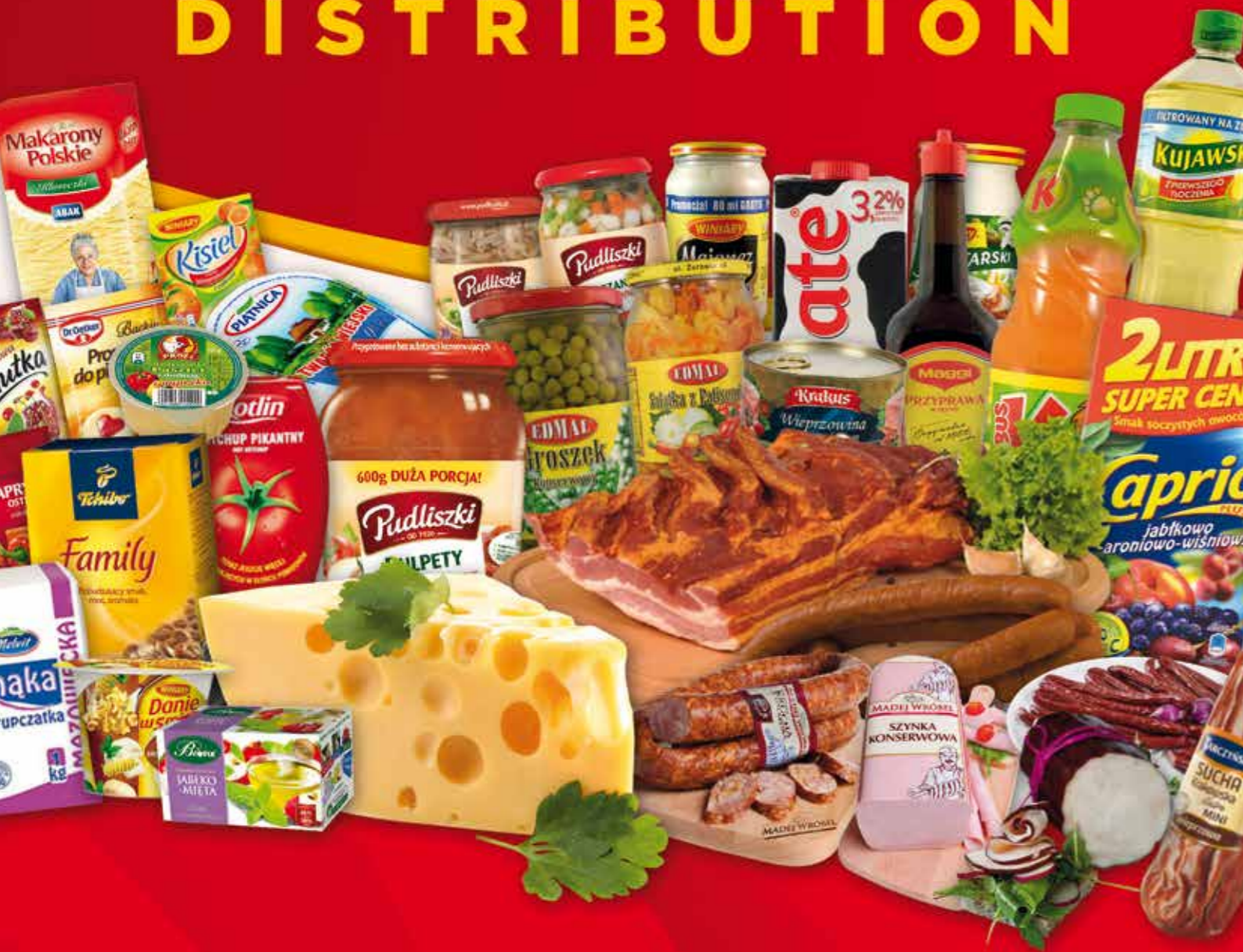
GROUP A	GROUP B
Paris Arsenal Basel Ludogorets	Benfica Napoli Dynamo Kyiv Beşiktaş
GROUP C	GROUP D
Barcelona Man. City Mönchengladbach Celtic	Bayern Atlético PSV Rostov
GROUP E	GROUP F
CSKA Moskva Leverkusen Tottenham Monaco	Real Madrid Dortmund Sporting CP Legia
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Sudoku SHAPESHIFTER

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1	3		6		8			4	
7						8	6		2

COLOUR BLOCKS

This is like a jigsaw puzzle. All the blocks fit together to make nine five-letter words reading across. Each word is a different colour. The mystery answer will read down the middle.

P	O	R	E	S					
E	O		R						
T	R		L	D					
E	L		D						
T		R	A	S		W			
I	L		P			O			
E	E		P			R			
I	N		U	P		S			

Crossword with IBB

Across clues:
 1. Expert Bamboo-eating mammals
 2. Sample (wine) Plant, aloe ...
 3. Pimple rash Hebrew patriarch
 4. Rejoices Engine part
 5. Actor ... Holm Of the kidneys
 6. Cloth scrap Infiltrates
 7. Going white Unopened blooms
 8. Wager Used stop-watch
 9. Bring together
 10. Flower stalk Snapshot
 11. Defective Flat boat
 12. Carnival ... Gras Hooting bird
 13. Due arrival (1,1,1) Nuzzling
 14. Trifling
 15. Sicilian volcano Infant's basket
 16. Bumbling No ... or buts
 17. Die arrival (1,1,1) Nuzzling
 18. Umpire Soup can
 19. Desexes
 20. Batman's sidekick Sharp taste
 21. Irish organisation (1,1,1)
 22. Romantic admirer Founding
 23. Harbour town Female deer Sphere
 24. Shouts of delight Ill-suited Snake-like fish
 25. Decays French cheese Fast food items
 26. Molars Carton
 27. English county
 28. Produce (egg) Detest
 29. I Love Lucy star, Lucille ...
 30. Entryway ringer Bang (toe) Appointed
 31. US state ... Island
 32. Person beyond help
 33. Him or ... Strains
 34. Point gun Shock result
 35. Sudden increase
 36. Fret (for)
 37. Saturate Fulfil
 38. Toronto is there Littler
 39. Humble Bakes meat
 40. Small leafy twig Prattle
 41. Wedding vow (1,2) Festival
 42. Rock band ... Zeppelin
 43. Dwindles Ship's canvases
 44. Speedy ... of foot
 45. Length units

Down clues:
 1. Heats (5,2)
 2. Helicopter platform Decorated (cake)
 3. Revenge, ... for lat
 4. Knight's title Emergencies
 5. Not quite closed Ignite
 6. Make unhappy
 7. Unhealthily overweight Screw Prayer ending
 8. Light-splitting glass
 9. Men's summer pants
 10. Muppet frog Record on VCR Portent
 11. Hosts (party)
 12. Invent Ailment
 13. Sicilian volcano Infant's basket
 14. Bumbling No ... or buts
 15. Die arrival (1,1,1) Nuzzling
 16. Umpire Soup can
 17. Desexes
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 35. Saturate Fulfil
 36. Toronto is there Littler
 37. Humble Bakes meat
 38. Small leafy twig Prattle
 39. Wedding vow (1,2) Festival
 40. Rock band ... Zeppelin
 41. Dwindles Ship's canvases
 42. Speedy ... of foot
 43. Length units



Laugh with IBB

by Szczepan Sadurski

Find 10 differences ...



- Mom, I have a girlfriend.
- Great, son! And how is she?
- She is beautiful and really quiet.
- John, another doll from sex-shop ?!

Construction worker in dirty heavy duty uniform came into the car dealer garage and asks the sale assistant:

- How much is Bentley GT coupe?
- 250,000 euros.
- Damn ... How about the car loan... How much monthly for a year?
- £ 25,000 monthly.
- A lot, shit ... And for two years?
- £ 12,500 monthly.
- Still a lot.
- Maybe would you like to have a look at the cheaper car?
- No, the crane had fallen exactly on that one.

-What is the difference between a two year old boy and a man?
- A two year old boy can be left alone with a nanny...

Russia. A five years old girl in the nursery says to a friend:

- And I have a new dad!
- What is his name?
- Nikolaj Iwanicz.
- Petrov?
- Oh yeah, how do you know?
- Well this one is a good one. He was my dad last year.

Mum says to her three years old son:

-Jan, Nun asked me to give you the birthday gift she get for you Jan.
- Oh wow, what is it?
- I do not know. Unpack.
- Aaaaaa !!! Mom !!! Its a water gun - and the toddler joyfully runs to the bathroom to fill it with water. The boy's mother calla to his nun:
- Mum! Don't you remember how we driven you crazy with water guns?
- Of course I remember, my dear!

Illustrations by Szczepan Sadurski

Discover our new websites!



We are pleased to welcome you to the new websites of IBB Polish Building Wholesale. Completely redesigned to enhance your browsing and customer experience. All of them are mobile friendly and you can explore them on smartphone, tablet or desktop. We have improved the access to information, we have added new search machine and we have introduced the new design.



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MONTHLY DEAL

OCTOBER 2016

blue dolphin tapes



selflevelling compound
AVAL KN 10
anhydrite-gypsum, for UFH,
thickness 5-30mm
£6.75 net
(RP £11.25 net)



ATLAS SAM-55
anhydrite-gypsum, for UFH,
thickness 1-10mm
£9.25 net
(RP £15.42 net)



ATLAS SMS-15
cement based,
thickness 1-15mm
£8.10 net
(RP £13.50 net)



ATLAS POSTAR 80
cement based, recommended
for quick repairs, thickness
10-80mm
£5.75 net
(RP £9.58 net)



ATLAS SMS-30
cement based,
thickness 3-30mm
£7.74 net
(RP £12.90 net)

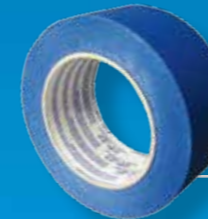


ATLAS POSTAR 100
cement based, for UFH and
driveways, thickness 10-50mm
£7.80 net
(RP £13.00 net)



masking tape MT-6273, yellow

25mm*50m **£0.62 net** (RP £1.04 net)
30mm*50m **£0.77 net** (RP £1.29 net)
38mm*50m **£0.98 net** (RP £1.63 net)
48mm*50m **£1.28 net** (RP £2.13 net)



**masking tape MT-PG,
blue, professional**

25mm*50m **£1.48 net** (RP £2.46 net)
38mm*50m **£1.97 net** (RP £3.29 net)
48mm*50m **£2.48 net** (RP £4.13 net)



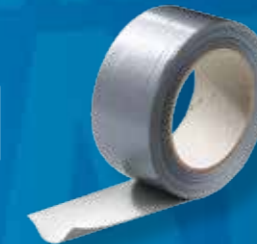
**rough surface plaster tape
DT-PR, orange**

48mm*50m
£4.75 net
(RP £7.92 net)



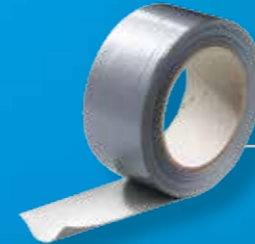
**contractor tape MT-PE
red, 120 days**

48mm*50m
£2.98 net
(RP £4.96 net)



duct tape, strong, FTG-265

48mm*50m
£5.35 net
(RP £8.92 net)



duct tape, OT-200

48mm*50m
£2.75 net
(RP £4.58 net)



double side Hybrid-Dual tape

10m
£1.75 net
(RP £2.92 net)



joining tape, PE, black

50mm*50m
£3.75 net
(RP £6.25 net)



barrier tape, red-white

75mm*100m
£2.25 net
(RP £3.75 net)



packing tape PTBR, brown

48mm*50m
£0.60 net
(RP £1.00 net)



aluminium tape, AT-22

48mm*50m
£4.75 net
(RP £7.92 net)

Spend £200 net or more and get ... IBB Builder T-shirt!



T&C All presented products are subject to availability. Products may vary from those illustrated. All prices are net exclusive of VAT. Some prices shown are for collections only. Some prices are subject to additional delivery charge per item with the minimum £180.00 net value of delivery.

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