### MATERIAL COMPARISON

# 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 N/mm<sup>2</sup> - recommended for any surfaces exposed to medium and high load. *Flexural strength:*  $\geq$  7.0 N/mm<sup>2</sup>. *Abrasion resistance:*  $\leq$ 9.5 cm<sup>3</sup>/50 mm<sup>2</sup> - acc. to Bohme. *Low linear shrinkage* - minimum changes in linear dimensions during screed drying (approx. 0.6 mm/rm) limit the risk of cracking.

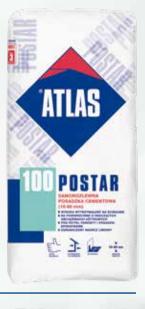
# ATLAS POSTAR 100 (10 - 80 mm) self-spreading cement floor

#### 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 N/mm<sup>2</sup> . *Flexural strength:*  $\geq$  7.0 N/mm<sup>2</sup> . *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

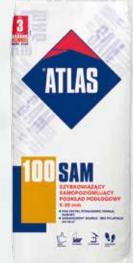
## ATLAS SAM 100 (5 - 30 mm) self-levelling screed

#### 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 N/mm<sup>2</sup> . Flexural strength:  $\geq$  6.0 N/mm<sup>2</sup> . Limited contraction – reduced to minimum possibility of shrinkage cracks during setting, which enables application on areas up to 50 m<sup>2</sup> 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.



### MATERIAL COMPARISON

ATLAS

## 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 arrangementsv - 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:**  $\ge 25.0 \text{ N/mm}^2$ . **Flexural strength:**  $\ge 7.0 \text{ N/mm}^2$ . **Very low linear shrinkage** - minimum changes in linear dimensions during screed drying ( $\le 0.6 \text{ mm/rm}$ ) 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 N/mm<sup>2</sup>. **Flexural strength**:  $\geq$  7.0 N/mm<sup>2</sup> . **Very low linear shrinkage** - minimum changes in linear dimensions during screed drying ( $\leq$  0.6 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.



DOSKONAŁA ROZLEWNOŚĆ

## 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 N/mm<sup>2</sup>. Flexural strength:  $\geq$  5.0 N/mm<sup>2</sup>. Limited contraction - reduced to minimum possibility of shrinkage cracks during setting, which enables application on areas up to 50 m<sup>2</sup> 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	ALL AND AL									
	ATLAS SAM 55 Fast setting, self-leveling	ATLAS SAM 100/ AVAL KN 10 Fast setting, self-leveling	ATLAS SAM 150 Fast setting, self-leveling	ATLAS SAM 200	ATLAS SWS/ ATLAS SAM 500 Fast setting, self-leveling	ATLAS SMS 15 Fast setting, self-leveling	ATLAS SMS 30 Fast setting, self-leveling			
Reference document	compound	screed	screed	Self-leveling screed PN-EN 13813:2003	screed	compound	screed			
Classification	CA-C30-F5	CA-C35-F6	CA-C20-F5	CA-C16-F5	CA-C20-F4	CT-C25-F7	CT-C30-F7			
			TECHNICAL DAT							
Self-spreading	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
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] Consumption for 1 cm	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			
thickness [kg/m <sup>2</sup> ]	18	20	20	20	18	16.6	16.5			
Compressive strength [N/mm²]	≥30	≥35	≥20	≥16	≥20	≥25	≥30			
Flexural strength [N/mm <sup>2</sup> ]	≥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	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Machine application (mixing-and-pumping units)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
			SCREED TYPE							
Bonded	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
On separation layer			$\checkmark$	$\checkmark$	$\checkmark$					
Floating			$\checkmark$	$\checkmark$	$\checkmark$					
With heating system			$\checkmark$	$\checkmark$	$\checkmark$					
USE IN FLOOR STRUCTURE										
Smoothing layer	$\checkmark$	$\checkmark$				$\checkmark$	$\checkmark$			
	PLACE OF APPLICATION									
Indoors - dry	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Indoors - wet						$\checkmark$	$\checkmark$			

## MATERIAL COMPARISON

PRODUCT	ATLAS POSTAR 10 Traditional cement floor	ATLAS POSTAR 20 Fast drying cement screed	ATLAS POSTAR 40 Cement floor	ATLAS POSTAR 80 Fast-setting cement floor	ATLAS POSTAR 100 Self-spreading cement floor					
Reference document	PN-EN 13813:2003									
	AT-15-9621/2016	AT-15-8432/2010 + Annex 1	AT-15-6972/2012	AT-15-8462/2010 + Annex 1	AT-15-6971/2012					
Classification	CT-C25-F5-A15	CT-C20-F4	CT-C30-F6-A22	CT-C40-F7-A12	CT-C50-F7-A15					
TECHNICAL DATA										
Self-spreading					$\checkmark$					
Thickness [mm]	10-100	10-80	10-80	10-80	10-80					
Mixing ratio water/dry mix [I/ 25 kg]	2.25-3.00	2.75	2.00-3.75	2.00	3.25-3.75					
Consumption for 1 cm thickness [kg/m²]	20	20	20	20	20					
Compressive strength [N/mm <sup>2</sup> ]	≥25	≥20	≥30	≥40	≥50					
Flexural strength [N/mm <sup>2</sup> ]	≥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	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
Machine application					$\checkmark$					
		SCREED TY	PE							
Bonded	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
On separation layer	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
Floating	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
With heating system	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
		USE IN FLOOR STR	RUCTURE							
Top floor	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$					
PLACE OF APPLICATION										
Indoors - dry	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
Indoors - wet	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					
Outdoors	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					