Plasters & Renders Selection

This guidance is on internal and external plasters (renders). There is a range of choice. Consider the different types of plaster or render depending on the background surface and the desired finish.

1 Internal plasters

2 External plasters

Internal plasters

Internal plasters 1

Undercoat plasters

Bonding - it is a gypsum based undercoat plaster for low suction backgrounds like tiling, dense concrete blocks, engineering bricks, concrete, plasterboad surfaces. An "undercoat" means one coat or base coat applied on a wall to prepare it for a top coat or finish plaster. It cannot be used on the absorbent surfaces. Latex SBR adhesive can be applied before bonding plaster.

Thistle BondingCoat - Undercoat plaster for most smooth or low suction backgrounds. Ideal base coat plaster for smooth or low suction backgrounds such as tiling, concrete, plasterboard or surfaces treated with Thistle Bond-It. Coverage based on 11mm thickness. Supplied in full pallets only on non-returnable wooden pallets.

Hardwall

It is a gypsum based undercoat plaster used for more absorbent surfaces (most masonry) than bonding. It offers a higher impact resistance and quicker drying. It is the most common type of undercoat plaster. With a final coat of Multi-Finish, it provides a smooth, inert, high quality surface to internal walls. The combination has superior impact resistance, earlier surface drying, a higher than normal resistance to efflorescence, and gives a durable base for the application of decorative finishes. Thistle Hardwall is a lightweight, retarded hemihydrate, pre-mixed gypsum plaster, incorporating special aggregates and additives, requiring only the addition of clean water to prepare it for use. It is suitable for application by hand or by plaster projection machine.

Thistle HardWall - Undercoat plaster for most smooth or low suction backgrounds. With high impact resistance and a quick drying surface this plaster is suitable for most masonry backgrounds such as common bricks, medium-density and aircrete blocks. Suitable for application by hand or mechanical plastering machines. Coverage based on 11mm thickness. Supplied in full pallets only on non-returnable wooden pallets.

Multifinish

It can be used as the undercoat plaster for masonry walls.

Use fiberglass mesh to avoid cracks

For the reinforced layer (base coat) installation – to be embedded in the adhesive layer during installation of thermal insulation systems both with polystyrene and mineral wool. Element of external wall insulation systems - covered with Domestic Approvals (AT) and European Technical Approvals (ETA). Flexible lattice made from special woven glass-fibre strands offering incredible strength when embedded into wet base coat plaster or render. Very light and easy to cut. Very economical and waste free material. No special equipment necessary.

Multifinish

Multifinish is a top coat plaster which is suitable for plasterboard surfaces. It can be used as a finishing plaster.

Thistle MultiFinish - It is the most versatile finish coat plaster and it provides a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard as well as smooth concrete.

It can be used on most suction surfaces. Suitable for application by hand or mechanical plastering machines. Coverage based on 2mm thickness. It is the perfect choice for plasterers working on both undercoats and board backgrounds on the same job. Its flexibility also makes it an ideal choice for small repair jobs and patching.

Helpful TIPS

- **Undercoat plasters are usually 11mm thick and most finish coat plasters are 2mm thick.**
- **For rough surfaces and bad walls use bonding or hardwall first, followed by 2 coats of multifinish.**
- **One Coat Plaster is perfect for patching and applications on plasterboards.**
- **Tiles should not be applied directly to thistle undercoats, with the exception of Thistle Dri-Coat.**
- **Use flatness guide (6 or 10mm). Special profiling and perforation makes it easier to work on the execution of plastering work inside the building and the optimal selection of the thickness of the plaster.**

One Coat Plaster

One Coat plaster can be used on various surfaces. It is ideal for filling larger holes and patching. It can be built up to a thickness of 25mm, coverage thickness is of 11mm. It gives the ideal smooth finish if applied on plasterboards. It provides the white surface for the decoration finish- painting, wall papering etc.

Knauf MP75 Projection Plaster

Knauf MP75 is a one-coat plaster specifically designed for machine application. It can be applied up to 20mm thick in one application. Suitable for use directly onto blockwork, uneven in-situ concrete or thin joint blockwork, Knauf MP75 has a drying time of 3-4 hours and provides a tough and durable smooth white surface ready to receive a decorative finish. When machine applied, Knauf MP75 offers excellent productivity and is up to 3 times faster than traditional plastering methods. Knauf MP75 is also suitable to be hand applied.

	Application	The background surface
Bonding	for smooth and low suction backgroudns	medium denisity blocks, dense blocks, engineering bricks with raked joints, plasterboard & multiboard, cast in situ, pre cast concrete, painted or tiled surfaces, metal lathing
Hardwall	high impact resistance for most masonry surfaces	aircrete blocks, common bricks, medium density blocks, dense blocks, metal lathing
Multifinish	for skim finishing undercoats and plasterboards	dry undercoats, damp undercoats, plasterboard, flat smooth concrete
One Coat	for hand and spray application to most backgroudns	aircrete blocks, common bricks, medium denisity blocks, dense blocks, engineering bricks with raked joints, plasterboard & multiboard, cast in situ, pre cast concrete, painted or tiled surfaces, metal lathing

Source: Thistle Plaster Selector Guide

External Plasters - Renders

External Plasters - Renders

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Sand and Cement Render

Sand and Cement Render is the traditional external rendering method. It is cheap, easy to apply and durable, but not waterproof so usually finished with paint. Additives such as lime or plasticiser are used to enhance the flexibility and durability of the render.

- *A typical mix is cement: sand + water*
- *1 part cement: 4 parts sharp sand: 1 part water + plasticiser*

The ingredients should be thoroughly mixed before adding water. Do not use a fine sand to avoid cracks. If the mix is too thick, it will be tough to apply and to achieve a smooth finish. If the mix is too thin, it will go on smoothly on the surface but then drop off. Also, over plasticising, a render mix will weaken it.

The render is mixed in a cement mixer, wheelbarrow or on the hard flat surface of a concrete slab. It is recommended to mix up only the amount of render for 30-40 minutes work. The render should be similar in the consistency of a soft putty and should stick to the float when it is up-side down.

STEP 1

The application should be on free from dust and debris- clean background surface.

Clean the wall with a brush before proceeding. To achieve the required coat's thickness the wooden battens or flatness guide can be helpful.

STEP 2

Blockwork or brickwork tends to be very absorbent, so sometimes it is recommended to splash it with water before coat application. Layers of render are applied on to the wall with the steel float until the desired thickness is achieved. Then use the metal level to screed off the render using the swing motion. Trowel smooth with the steel float. Render should be applied in two coats. The first layer should not exceed 15mm thickness and the second layer should be 5-7mm. The first coat should be slightly stronger than the second one. Ideally, the coating thickness should be 8 -10 mm.

STEP 3

If more than one coat is applied, each coat needs to dry for about 3 to 7 days. Adequate curing is essential to allow the strength of the render to develop. Rendering should be done in the temperatures not exceeding 25 C degrees. The dried render coat has to be scourged to achieve the appropriate surface for the next coat application to bond.

STEP 4

Rendering must no bridge the DPC.

There are multiple render finishes, for instance:

- smooth trowel finish - achieved by skimming the final coat with a float
- pattern finish- made by adding textures into the surface
- textured finish- made by adding coarser aggregate into the final coat
- sponge finish - sponging the hardened surface with a damp sponge achieves a sponge textured finish
- roughcast finish - throwing the final coat onto the surface gives a roughcast finish

Sand and Cement Render

ATLAS REKORD

white, cement-based
finishing coat

Description

Smooths the surface of walls – the use of aggregate with a diameter of 0.2 mm makes it possible to obtain a very smooth surface. Enables smoothing the thin-coat structural plasters – laid on either traditional plasters or on thermal insulation layers (is not an element of thermal insulation systems).Improves the quality of damaged cement-based and cement-lime plasters and of concrete substrates.

The main characteristics

white cement - based, for finishing walls and ceilings, for typical mineral substrates, contains fine aggregate – up to 0.2 mm, reinforced with microfibres

The main parameters

- compressive strength: 3.5 ÷ 7.5 N/mm
- consumption: 1.5 kg/1m for 1mm thickness
- layer thickness: 1 - 10mm

ATLAS REKORD GREY

grey, cement - based finishing coat

Description

Improves the quality of damaged cement-based and cement-lime plasters and of concrete substrates. Smooths the surface of walls – the use of aggregate with a diameter of 0.2 mm makes it possible to obtain a very smooth surface. Recommended for damp rooms such as kitchens, laundries, bathrooms and swimming pools.

The main characteristics

- for ceilings and walls made of bricks, hollow bricks and concrete plastering
- plastered walls evening up
- for damp rooms
- reinforced with microfibres
- layer thickness from 1 up to 10 mm

The main parameters

- compressive strength: 3.5 ÷ 7.5 N/mm
- consumption: 1.0 kg/1m for 1mm thickness
- layer thickness: 1 - 10 mm

CEKOL C35

white smooth cement
based external plaster

Features:

CEKOL C-35 is a high quality material used for smoothing and refining of external walls (façades) of buildings, but it can also be used internally, particularly in rooms exposed to high humidity (e.g. bathrooms, saunas, refrigerated chambers).

Properties:

CEKOL C-35 is an elastic, frost and water proof plaster. It is a dry mixture of high quality white cement, white mineral fillers and modified substances which guarantee excellent workability and adhesion to mineral bases (e.g. concrete, bricks). CEKOL C-35 does not contain toxic substances or components which turn yellow when exposed to atmospheric conditions. It is an excellent primer for emulsion, acrylic, gloss and mineral paints, where its white colour provides better coverage for paint so to help achieve a full colour effect.

Base preparation:

The plaster has an excellent adhesion to concrete, bricks, ceramist blocks, plasterboards and blocks. The surface being adhered to must be flat, dry, clean and free from dust, grease and paint prior to plastering to ensure a good bond.

NOTE: Strongly absorbable bases should be primed with CEKOL DL-80 priming emulsion.

Application:

Pour the package contents to water in the proportion of 0.35 litre of water for 1 kg of dry powder and mix thoroughly until a uniform thick mixture is obtained. Then wait 3 minutes and mix thoroughly again. Apply the plaster to previously prepared surface with clean stainless steel or plastic tools. After preliminary setting of the material, small finishing corrections of the surface are possible. It is recommended to apply layers not thicker than 5 mm at a time. Painting is possible after plaster is fully set. In order to reduce paint wastages, set CEKOL C-35 surface should be primed with CEKOL DL-80 priming emulsion or primer recommended by the paint manufacture. Layer of fresh plaster should be protected against excessive drying.