Hämeenkatu 9
05800 HYVINKÄÄ
Tel. 020 789 5900
www.fescon.fi

# REPAIRING PLASTER KL 25+




## Product description

Fescon Repairing plaster KL 25+ is fibre-reinforced, polymer-modified cement-binding dry mortar. KL 25+ Repairing plaster can be used for patching holes in concrete structures, repairing and levelling floor and wall surfaces, and patching holes in roof surfaces in accordance with repair method 3.1 (manual mortar patching). Suitable for indoor and outdoor use. Largest grain size 1.2 mm. Adhesion strength R3.

- Easy to use
- Contains corrosion inhibitor
- Adhesion strength R3
- Compression strength approx. 25 MPa
- Can be applied by hand or by spraying
- Can be milled

## Applications

- Base strength 20 to 35 MPa
- Concrete surface and cavity repairs
- Balcony slab repairs
- Straightening and levelling of concrete walls
- Recommended layer thickness 2...25 mm
- In patching and filling, the maximum layer thickness is 60 mm

**The product is listed in the portal for building products that can be used in Nordic Swan Ecolabelled buildings.**

## Instructions

# Base

- The temperature of the base should be +5°C...+25°C.
- The concrete base must be clean and dust free. Loose layers, damaged concrete, cement glue and other impurities are mechanically removed from the base to ensure adhesion. Removal can be carried out, for example, by chiselling, milling, sandblasting or water sandblasting. Coarse surface produces best adhesion.
- In outdoor areas, it is recommended that the base be cleaned with water using a high-pressure washer, in which case it is not necessary to dampen the base separately.
- Exposed reinforcing bars should be cleaned of loose rust to cleaning grade Sa2.
- The steels may only be cut in accordance with the designer's instructions.
- If necessary, Fescon Adhesive Plaster TL can be used to protect reinforcement steels, in accordance with the product card instructions.
- If necessary, new reinforcing bars will be installed according to the plans.

Hämeenkatu 9
05800 HYVINKÄÄ
Tel. 020 789 5900
www.fescon.fi

## Priming

- The concrete base is wetted with water to matte moistness to prevent the dry base from absorbing the moisture in the repair mortar. There must be no running water.
- Starting the wetting the night before installation is recommended so that the water is absorbed deep enough into the base. In renovation sites with a very dry base that absorbs moisture, it is recommended that the base is wetted several times.
- Fescon Adhesive Plaster TL can be used to improve adhesion according to the instructions on the product card. When using adhesive plaster, the repair mortar is applied before the adhesive plaster is dry using the wet-to-wet method. Alternatively, the adhesive plaster is completely hardened after 1 to 2 days, depending on the conditions.
- Additional liquid adhesion promoters should not be used.

## Mixing and use

- The workspace must be protected from strong wind, sunshine and rain.
- During mortar application and product hardening, the temperature should be +5°C...+25°C.
- A bag (20 kg) of dry powder is mixed with 2.7 to 2.9 litres of clean water. We recommend that you initially mix the minimum amount of water and add water as necessary. The amount of water specified in the instructions must not be exceeded, as this reduces the strength values of the product, increases the risk of separation and prolongs the drying time. When casting wall surfaces, the amount of water in the product is suitable when the product does not drain when installed.
- This mixing time is 2 to 3 minutes with a grout whisk or 10 minutes with a concrete mixer. After mixing, allow the mass to stand for about 10 minutes, after which a short remix is made.
- The working time is roughly 2 hour from the mixing.
- The product can be applied by spraying or by hand, e.g. by using a steel trowel. When necessary, the prepared surface should be rubbed to reach the quality level required in the application. For example, use a polyurethane rubbing tool and/or a steel spatula to even up. Surface rubbing can be carried out when the product has dried slightly.
- Surface adjustments can be made using guide mouldings or boards along which the liner is pulled. When straightening corners, a guide board is used against which the product can be spread straight.
- The recommended layer thickness is 2 to 25 mm. Thicker layers are made with several separate layers so that the previous layer is allowed to harden for at least 24 hours before the next layer is applied. If necessary, the previous mortar layer can be wetted to matte moistness.
- Wash the tools with water immediately after the work has been completed.

## Coating

- Repairing plaster KL 25+ can be coated with a cement-based coating, e.g. with Fescon Facade coating JSP. Alternatively, the coating can be made with Silicone resin roating MC or Fescosan-Coating.
- The surface can be painted with Fescon Stone paint KS, Silicate facade paint, Protective paint, Silicone resin paint or Fescosan-Facade paint.
- With balcony floors, coating can be made with polyurethane or epoxy coatings. The surface can also be waterproofed and tiled. Check with the manufacturer for coating requirements.
- Select coating or paint according to Fescon's concrete balconies design, repair and work instructions.

## Aftercare

Hämeenkatu 9
05800 HYVINKÄÄ
Tel. 020 789 5900
www.fescon.fi

- The surface is kept moist for 2 to 5 days, depending on the conditions and location, either with water spray or plastic film.
- Sufficient moisture of the mortar must be ensured during the curing phase so that the curing reaction works correctly and the desired strength is achieved. This also prevents possible plastic cracking and surface detachment from the substrate.
- Especially in the spring and on heated sites, aftercare should be started immediately and carried out carefully, since in the spring the relative humidity of the air is often less than 40% RH. Low relative humidity combined with sunlight and wind dries the surface very quickly.

## Other considerations

- Hardened product can only be removed mechanically.
- When repairing concrete structures, the instructions for repairing concrete structures (by 41) are taken into account.

### Waste handling

Storage and handling of waste
See the separate storage and disposal instructions https://www.fescon.fi/en/material-bank

Hämeenkatu 9
05800 HYVINKÄÄ
Tel. 020 789 5900
www.fescon.fi

# Technical information

| | |
|---|---|
| **Material usage** | 1,8 kg/m$^2$/mm |
| **Water requirement** | 2.7 - 2.9 l / 20 kg |
| **Type** | Powder |
| **Binder** | Cement |
| **Colour** | Grey |
| **Maximum grain size** | 1,2 mm |
| **Package size** | 20 kg |
| **Storage** | Storage time in a dry location approx. 1 year |
| **Layer thickness** | 2 - 25 mm |
| **Fibre** | Fibre-reinforced |
| **Additives** | Auxiliary materials for improving workability, corrosion inhibitor |
| **Usage temperature** | +5°C...+25°C |
| **Workability time** | Approx. 2 h |
| **Compressive strength** | Approx. 25 MPa |
| **Adhesion strength** | > 1.5 MPa, R3 |
| **Flexural bond strength** | Approx. 8.0 MPa |
| **Shrinkage** | Approx. 1.0 ‰ (28 d prism) |
| **Linear expansion coefficient** | (+1°C) 14.7 x 10$^{-6}$/ °C |
| **Reaction to fire** | A2 (848/2017, 927/2020) |
| **Carbonation** | Approx. 5 mm (91 days, expedited test) |
| **Frost resistance** | Frost resistant, suitable for indoor and outdoor use |
| **GWP A1-A3** | 0,46 |
| **GWP unit** | kg CO2e/kg |
| **Method for calculating the GWP value** | Generic |

Limitation of liability, product use notes and restrictions: Please familiarize yourself with Fescon Oy's general terms of delivery and the design and work instructions related to the product.