

Torggler

Restoration

R.E.D.

Pre-mixed fibre-reinforced mortar/plaster for regularisation, levelling and restoration work from 3 to 40 mm. Skim plaster for façade renovation with very high adhesion power and excellent workability, type GP CSII W0, according to EN 998-1, for restoration and levelling work, for thickness from 3 to 40 mm. For manual and machine applications.



- Adhesion to various substrates
- Fibre-reinforced
- Excellent workability
- For manual and mechanical applications



APPLICATION AREAS

- Plastering of brick and concrete walls and ceiling soffits
- Levelling of uneven substrates and old plasters
- Renovation and regularization of existing plasters
- Plastering of electrical, plumbing and wall heating systems.
- For indoor and outdoor use.

TYPES OF SUBSTRATE

Mineral substrates such as bricks, plaster, concrete, etc.

MAXIMUM ATTAINABLE THICKNESSES

From 3 to 40 mm

FEATURES

R.E.D. is a pre-mixed, mineral, fiber-reinforced mortar, based on special binders, aerial lime and white cement, applicable both indoors and outdoors, for skimming, even reinforced skimming, levelling, in thickness between 3 and 40 mm, for interventions on new structures and/or in the recovery of existing structures, even in the case of historic buildings. Its special formulation ensures excellent adhesion and compatibility with various types of substrate: concrete, old and new plaster, cement-lime mortar, lime mortar, brickwork, etc., provided it has a good consistency and is perfectly anchored to the substrate. Once mixed with water, a mortar of exceptional workability, excellent thixotropy and adhesiveness is obtained. It is resistant to frost-thaw cycles. Classification according to EN 998-1 GP CSII W0.

WARNINGS

- Do not apply R.E.D. at temperatures below +5 °C or above +30 °C.
- Never mix with other binders such as cement, hydraulic lime, gypsum, etc.
- Do not use the mixture no more and do not add water when it is no longer workable. Take care to prepare from time to time a quantity of product that can be applied within its workability time.

INSTRUCTIONS FOR USE

Preparation for use

The substrates must be clean and sound, free of oils and greases, dust, crumbly material and dirt in general. Any residues of release agent must be carefully removed. Remove any loose, crumbling, inconsistent parts until the sound, durable substrate is reached. Wash the entire surface to be treated with pressurized water to remove all traces of dust or other loose material.

Product preparation

Mix R.E.D. with 27-29% of clean water (equal to 6.75-7.25 litres per 25 kg bag) in the following way: in a special container pour almost all the necessary water, then add the powder product slowly, stirring at the same time while the mixture is forming using a low-speed drill with a specific propeller. Once all the powder has been added, pour in the remaining water and stir until the mixture is homogeneous and free of lumps, taking particular care to remove lumps of unmixed material from the walls and bottom of the container. Allow to stand for approx. 5 minutes, then mix briefly. The prepared mixture remains workable in the mixing containers for about 2 hours under normal conditions (at 20 °C); higher temperatures shorten the workability time, while lower temperatures lengthen it. In the case of absorbent substrates, before applying R.E.D., wet the substrate until it is saturated and allow the excess water to evaporate or remove it with a sponge. In case of substrates with difficult adhesions, a preliminary layer of Multigrip should be applied. The application of the R.E.D. product can be carried out using a continuous mixing plastering machine such as Turbosol, PFT, Putzmeister or similar.

Instructions for application

Apply the product with an American trowel in case of skimming or with masonry trowel and/or a straight edge tool in case of higher thickness (never exceed 40 mm overall). The product can also be applied with a suitable plastering machine after setting it up correctly. In the case of recovery operations or in general in the presence of discontinuous, irregular and/or cracked surfaces, it is advisable to apply the product in two subsequent coats, fitting an alkali-resistant glass fibre reinforcement mesh between one coat and the other. After leaving the applied product to cure well (in normal conditions about 30 minutes; times may vary depending on environmental conditions and the type of substrate), finish with a spatula or sponge plastering trowel depending on the type of finish desired. If necessary, after 24 hours, the surface can be further optimised/levelled with a special plaster robot/levelling machine. Applications made with R.E.D. must be protected from direct sunlight and rain for at least 24 hours; ensuring that the product applied is protected from frost for at least 7 days. The tools used for application can be cleaned with water before the material hardens; afterwards cleaning can only be carried out by mechanical removal. For applications on wall or ceiling heating and/or cooling systems, apply the product RED at least 8 mm above the pipe, wait about 3 days and smooth the surface with Multifinish, fitting an alkali-resistant glass fibre reinforcement mesh between one coat and the other, and finish with a construction trowel or sponge trowel, depending on the type of finish required. The use of R.E.D. for the creation of wall heating/cooling systems makes it possible to proceed with the first start-up of the system after 7 days; for the start-up procedure and test methods, follow the standards in force (EN 1264).

Cleaning

The tools used for laying can be cleaned with water before the material hardens; afterwards cleaning can only be carried out by mechanical removal.

WAITING TIMES

For painting or the application of subsequent surface treatments it is necessary to wait at least 7-10 days after application of the product. Small tiles can be applied at least 4 weeks after the application of R.E.D.

TECHNICAL SPECIFICATIONS

Consistency	powder
Bulk density	1,20 kg/l
Granulation (EN 1015-1)	0 – 1 mm
Mixing water	27-29% (6,75-7,25. litres per 25 kg bag)
Mixture consistency (EN 1015-3)	thixotrope
Mixture density (EN 1015-6)	1,70 kg/l
pH	approx. 12
Mixture workability time (EN 1015-9)	approx. 2 hours
Density of hardened mortar (EN 1015-10)	1,50 kg/l
Compressive strength (EN 1015-11)	4,5 N/mm ²
Flexural strength (EN 1015-11)	2,0 N/mm ²
Adhesion to concrete (EN 1015-12)	0,4 N/mm ²
Water absorption coefficient due to capillary action (EN 1015-18)	1,0 kg/m ² *min ^{0,5}
Permeability to water vapour coefficient (μ) (EN 1015-19)	5-20
Thermal conductivity coefficient λ10 dry (table value according to EN 1745)	0,61 W/mK (table value) per P = 50%
Thermal conductivity coefficient λ10 dry (table value according to EN 1745)	0,66 W/mK (table value) per P = 90%
Reaction to fire (EN 13501-1)	A1
Application temperature	+5 °C to +30 °C
Drying time	approx. 10 days
Operating temperature	-20 °C to +90 °C
Consumption	approx. 1,4 kg/m ² per mm thickness
Classification EN 998-1	GP CSII W0
Color	Ivory
Packaging	bag
Packaging size	25 kg
Pallet	50 bags

CONSUMPTION

The consumption of R.E.D. is approx. 1.4 kg/m² each mm of thickness.

STORAGE

Store R.E.D. in a dry and sheltered place. In the original closed bags it is kept for at least 12 months. **PROTECT FROM HUMIDITY.**

Classifications and standards according to european regulations for internal plastering and external rendering mortars EN 998-1		
GP	=	General purpose mortar for internal plastering and external rendering
LW	=	Light mortar for internal plastering and external rendering
CR	=	Coloured rendering mortar for external use
OC	=	Single-layer rendering mortar for external use
R	=	Restoration mortar
T	=	Thermal restoration mortar
CS I	=	Compressive strength values between 0,4 and 2,5 N/mm ²
CS II	=	Compressive strength values between 1,5 and 5,0 N/mm ²
CS III	=	Compressive strength values between 3,5 and 7,5 N/mm ²
CS IV	=	Compressive strength values ≥ 6 N/mm ²
W0	=	Capillary absorption value: not specified
W1	=	Capillary absorption value: $c \leq 0,40 \text{ kg/m}^2 \cdot \text{min}^{0,5}$
W2	=	Capillary absorption value: $c \leq 0,20 \text{ kg/m}^2 \cdot \text{min}^{0,5}$

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