Technical leaflet



FLOWCRET 1-10 EXPRESS

Fast-setting, self-leveling, polymer modified cementitious screed

Description

Fast-setting, self-leveling cementitious mortar for leveling floor substrates, enriched with polymer components (resins). It features high mechanical strength, superb adhesion to the substrate, excellent workability, fast-hardening and drying and low shrinkage. It provides a smooth, flat and durable final surface, ready to be covered in a very short time with any further finishing layer. Suitable for layers 1-10 mm thick.

It is classified as a screed material CT-C40-F7-AR0,5 (grey) and CT-C30-F7-AR6 (white) according to EN 13813.

Fields of application

Ideal for fast smoothening and leveling of concrete floors, cement screeds, mosaic floors etc. that are going to be covered with all kinds of tiles, carpet, parquet, vinyl tiles etc. It is suitable only for interior use. It may be left as a final topping layer in basements, attics, home storerooms etc. Suitable for leveling floors with underfloor heating systems.

FLOWCRET 1-10 EXPRESS may be used as a final layer in residential areas, provided that ISOMAT BI-100 will be applied on its surface to increase the wear resistance, the resistance to detergents and to reduce water absorption.

Furthermore, FLOWCRET 1-10 EXPRESS (White) can be mixed with pigments based on iron oxides, in order to have a colored final surface.

Technical data

FLOWCRET 1-10 EXPRESS Grey

Form: cementitious powder

Color: grey

Water demand: 5.0-5.5 l/25 kg bag
Application thickness: from 1mm to 10mm

Bulk density

of dry mortar: $1.55 \pm 0.10 \text{ kg/l}$

Bulk density

of fresh mortar: $2.1 \pm 0.10 \text{ kg/l}$

Compressive strength acc. to EN 13892-2: • 4 hours: \geq 15.0 N/mm² • 24 hours: \geq 20.0 N/mm² • 7 days: \geq 30.0 N/mm² • 28 days: \geq 40.0 N/mm²

Flexural strength acc. to EN 13892-2: • 4 hours: $\geq 5.0 \text{ N/mm}^2$ • 24 hours: $\geq 6.0 \text{ N/mm}^2$ • 7 days: $\geq 6.5 \text{ N/mm}^2$ • 28 days: $\geq 7.0 \text{ N/mm}^2$

Bond strength acc. to EN 13892-8: • 28 days: ≥ 2.5 N/mm²

Wear resistance acc. to EN 13892-4 (BCA):

• 28 days: AR0.5

Setting shrinkage acc. to EN 13872: • 28 days: max 0.45 mm/m

Euroclass A1_{fl}

Reaction to fire: (EN 13501-1)

Walkability: after 2 h

Successive layer (tiles): after 24 h

Pot life: $25-30 \text{ min at } +20^{\circ}\text{C}$

FLOWCRET 1-10 EXPRESS White

Form: cementitious powder

Color: white

Water demand: 6.0-6.5 I/25 kg bag
Application thickness: from 1mm to 10mm

Bulk density

of dry mortar: $1.40 \pm 0.15 \text{ kg/l}$

Bulk density

of fresh mortar: $2 \pm 0.10 \text{ kg/l}$



FLOWGRET 1-10 EX

Compressive strength acc. to EN 13892-2:

• 24 hours: $13.50 \pm 1.00 \text{ N/mm}^2$ $17.50 \pm 2.00 \text{ N/mm}^2$ • 7 days: • 28 days: $34.50 \pm 3.00 \text{ N/mm}^2$

Flexural strength acc. to EN 13892-2:

• 24 hours: $4.00 \pm 0.50 \text{ N/mm}^2$ • 7 days: $4.50 \pm 1.00 \text{ N/mm}^2$ • 28 days: $9.00 \pm 2.00 \text{ N/mm}^2$

Bond strength acc. to EN 13892-8:

 $1.30 \pm 0.30 \text{ N/mm}^2$ • 28 days:

Wear resistance acc. to EN 13892-4 (BCA):

• 28 days: AR6

Setting shrinkage acc. to EN 13872:

 $0.40 \pm 0.20 \text{ mm/m}$ • 28 days:

Reaction to fire: Euroclass A1_{fl}

(EN 13501-1)

Walkability: after 4 h

Successive layer (tiles): after 24 h

Pot life: 30-40 min at +20°C

Directions for use

1. Substrate

The substrate must be dry, statically sufficient and also free of dust, grease, loose particles etc. Primarily, the surface is primed with the primer UNI-PRIMER. Product application follows once the primer has completely dried out (approx. after 2 hours). Primer consumption: 200-300 g/m².

2. Application

FLOWCRET 1-10 EXPRESS is gradually added into water under continuous stirring, until a homogeneous, lump free, fluid mass is formed. The mixture is left about 2-3 minutes to settle and is then stirred again for 1 more minute. A low speed electric mixer (approx. 300 rpm) is recommended for mixing. The mortar is poured onto the primed substrate in one layer and is spread to the desired thickness with a large metal trowel, squeegee etc. As soon as the product has self levelled it must be rolled immediately with a suitable spiked roller to release all the air retained within its mass. For greater layer thickness, up

30 mm, it is recommended to use FLOWCRET 3-30 EXPRESS.

Consumption

Approx. 1.65 kg /m²/mm of layer thickness.

Packaging

FLOWCRET 1-10 EXPRESS is supplied in 25 kg paper bags.

Shelf-life - Storage

12 months from production date if stored in original, unopened packaging, in protected from moisture and frost.

Remarks

- During application and initial setting/ hardening of **FLOWCRET** 1-10 EXPRESS the surface must be protected from quick water loss due to the high temperature, U.V. radiation or wind.
- Do not add cement, gypsum, lime or other binders to the FLOWCRET 1-10 EXPRESS mix.
- Before the installation of parquet or vinyl tiles is necessary to measure the moisture content with a moisture meter.
- Temperature during application should be at least +5°C.
- Mixture that has started to harden should not be used.
- FLOWCRET 1-10 EXPRESS contains cement and reacts as alkaline with water. so it is classified as irritant.
- Consult the usage risks and safety advice written on the bag.







FLOWCRET 1-10 EXPRESS

FLOWCRET 1-10 EXPRESS GREY



ISOMAT S.A.

17th km Thessaloniki – Ag. Athanasios P.O. BOX 1043, 570 03 Ag Athanasios, Greece

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EN 13813 CT-C40-F7-AR0,5

Cementitious screed material for use internally in buildings

DoP: FLOWCRET 1-10 EXPRESS GREY/1638-04

Reaction to fire: A1_{fl}

Release of corrosive substances: CT

Water permeability: NPD

Water vapour permeability: NPD

Compressive strength: C40

Flexural strength: F7
Wear resistance: AR0,5
Sound insulation: NPD
Sound absorption: NPD
Thermal resistance: NPD
Chemical resistance: NPD

FLOWCRET 1-10 EXPRESS WHITE



ISOMAT S.A.

17th km Thessaloniki – Ag. Athanasios P.O. BOX 1043, 570 03 Ag Athanasios, Greece

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EN 13813 CT-C30-F7-AR6

Cementitious screed material for use internally in buildings

DoP: FLOWCRET 1-10 EXPRESS WHITE/1639-03

Reaction to fire: A1_{fl}

Release of corrosive substances: CT

Water permeability: NPD

Water vapour permeability: NPD

Compressive strength: C30

Flexural strength: F7
Wear resistance: AR6
Sound insulation: NPD
Sound absorption: NPD
Thermal resistance: NPD
Chemical resistance: NPD

ISOMAT S.A.

BUILDING CHEMICALS AND MORTARS MAIN OFFICES - FACTORY:

17th km Thessaloniki - Ag. Athanasios Road, P.O. BOX 1043, 570 03 Ag. Athanasios, Greece, Tel.: +30 2310 576 000, Fax: +30 2310 722 475

www.isomat.net e-mail: info@isomat.net

