

REC CRETE C-116

High performance easy leveling, pumpable screed

PRODUCT

Rec Crete C-116 is an easy-leveling screed, with very low shrinkage and pumpability characteristics. The low shrinkage feature allows the applicator to apply **Rec Crete C-116** at large areas without the need of control joints. Due to its flowable consistency, **Rec Crete C-116** can be pumped without bleeding or without affecting its final performance with an application thickness varying from 20 to 60mm (it can reach 100mm at punctual areas). Once applied, **Rec Crete C-116** requires only to be covered with plastic sheet for seven days.

It is made of special cement, selected aggregates and additives which give the product its high performance in terms of low shrinkage, adhesion, strength, and segregation resistance. The mix design is readily mixed to produce a screeding- flowable consistency. It is easily applied and finished.

SCOPE OF USE

Rec Crete C-116 is a multi-purpose screed suitable for different type of projects:

- Residential buildings, malls
- Hotels, hospitals, offices
- Warehouses for light to medium use

It can be used for the following purposes:

- Filling gaps and adjusting leveling under tiles
- As substrate for self-leveling products intended to be covered with thin coverings
- Or as a part of comfort solutions (thermal and sound insulation systems). Screed on top of sound insulation membrane or thermal insulation board.
- **Rec Crete C-116** can be used as bonded, un-bonded or floating application

ADVANTAGES

- Pumpable
- Easy leveling
- No water curing is required
- No risk of cracks due to its low shrinkage properties therefore can be applied at larger areas
- Multi-purpose and can be used as part of comfort solutions: thermal and sound impact insulation systems

CHARACTERISTICS

Color	Grey powder
Grain size	<5 mm
Mix density	2.25 +/- 0.1
Shrinkage according to EN 13454-2	<0.4 mm/m

Flexural strength at 28 days - EN 13813	6 MPa
Compressive strength at 28 days - EN 13813	≥20 MPa

APPLICABLE STANDARDS

EN 13454-2; EN 13813; BS 8204

INSTRUCTIONS FOR USE

SUBSTRATE PREPARATION

In case of bonded screed

- Concrete substrate should be at least 3 months old and structurally stable (Residual moisture <4%).
- Concrete must be crack free. Thus, any crack must be repaired prior to application.
- All surfaces should be clean, dry, and free from grease, laitance, oil, dust, paint and any other substance that may prevent or reduce adhesion.
- Remove all weak, loose, smooth or broken pieces of concrete, until reaching a sound rough concrete. This can be achieved primarily by shot-blasting otherwise by medium scarifying or grinding.
- The prepared surface must have an average "surface tensile adhesion strength" greater than 1 MPa. Moreover, it should have CSP (concrete surface profile) of 6 - 8.
- Then, the substrate must be vacuumed, and primed with **Rec Crete C-116**.
- Soft strips to be fixed as a separation between the walls / columns and the screed before proceeding with the application.

Reckon doesn't warrant any defect due to concrete substrate movement.

Primer Application

- **Rec Crete C-111** must be brushed into the substrate using soft brush. Primer's puddles should be avoided.
- **Rec Crete C-111** must be applied on one or two coats depending on the substrate
- For dry and porous substrate, dilute first coat of **Rec Crete C-111** with water at the ratio 1:5. Allow to dry a clear film before applying the second layer with a dilution ratio 1:3
- For dense concrete, apply one coat of **Rec Crete C-111** diluted at the ratio 1:3
- **Rec Crete C-116** should be applied as soon as the colour of the primed surface change from white to clear.

In case of un-bonded and floating screed

- Start by fixing soft strips (5 to 10 mm thicknesses) as a separation between the walls / columns and the screed.
- Lay down thick Polyethylene sheets (200 to 250 micron) on the substrate.

REC CRETE C-116

- Make sure that the Polyethylene sheets overlaps for around 30cm.
- Make sure that the Polyethylene sheets ride over the corners and the vertical edges surrounding the screed to cover them for around 20cm.
- Lay Rec floor mesh a 10x10 mm alkali resistant fibre mesh overlapped for around 30cm or 100 x100 mm galvanized steel mesh. The mesh should be fixed in a way to persist flaking on 1/3 to 1/2 of the layer thickness.

PRODUCT PREPARATION

Manual application

- Each 25 kg bag of powder needs 3.1 to 3.4 litres of clean and cool water
- Adjust the amount of water to obtain a flowable, homogeneous mixture without bleeding or separation.
- **Rec Crete C-116** should be mixed using a revolving drum mixer having a suitable capacity.
- Measure the proper amount of cool water. Pour them into the mixer then add gradually **Rec Crete C-116** powders.
- Mix for around 2 minutes until lumps free mix is obtained.
- Make sure that the mixed material has a temperature not exceeding 30 °C (use ice if necessary to cool down water).
- Allow the material to rest for 1 minute to cool down. Then mix it for 30 sec..

Mechanical application

- **Rec Crete C-116** can be mixed and applied by using the appropriate pumping machine.
- Water ratio should be adjusted to obtain a flowable, homogeneous mixture without bleeding or separation.

PRODUCT APPLICATION

- Limit the work areas into manageable sections for maximum 50 m². Reduce the width of the work area when applying in warmer temperatures (or use cold water).
- Pour the mixed material onto the prepared surface, then immediately spread it with a large metal trowel to aid in levelling the surface.
- **Rec Crete C-116** can be pumped without bleeding or without affecting its final performance with an application thickness varying from 20 to 60mm.
- **Rec Crete C-116** can reach 100 mm thickness when adjusting the level at punctual areas. Consult our technical team before proceeding.
- In case of un-bonded application is required, **Rec Crete C-116** can be applied up to 50mm without control joints.
- In case of floating application, a minimum thickness of screed should be respected. Kindly consult the technical department for more details.

- Always keep a wet edge of material to pour fresh material into.

- Protect the material from wind and direct sunlight during and after installation.
- Cover the freshly applied screed with a plastic sheet for 7 days as soon as it becomes walkable.
- Ideal application temperature is between +5 °C and + 35 °C.

PRECAUTIONS

- It is preferable to subdivide the total area of application in smaller ones not exceeding 50 m² each in order to facilitate the application of **Rec Crete C-116**.
 - All existing movement/expansion joints in the base should be maintained and continued through the **Rec Crete C-116**.
 - It is advisable to leave control joints each 30 m². Rectangular shape is preferable making sure that the length not exceeding 15m.
 - In case of corridors, it is recommended to fix control joints on each 15 linear meters and in each connection between corridor and room.
 - In hot and dry weather, it is preferable to apply the product early morning or late afternoon.
 - Avoid work under heavy windy condition where the product may dry fast and cracks might appear.
 - All the opening (windows, doors) should be closed in order to reduce the effect of wind during the application and while the applied area still fresh. Any applied materials should be protected from sun light.
 - After usage, clean tools with water. It is recommended to use protective gloves. In case of contact with the eyes, clean thoroughly with water.
 - Water must not be overdosed.
 - Do not add more water to a mix which has already begun to set.
 - Wait from 3 to 6 weeks before applying an overlayment.
- For additional information, please contact our technical support department or one of our Sales Persons.

CONSUMPTION

Approximately 42 kg/m per 20mm thickness.

STORAGE

One year after manufacturing date in its original packing non open and in dry cool area.



RECKON
CHEMICALS (PVT) LTD.

www.reckonchemicals.com
info@reckonchemicals.com

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SAFETY PRECAUTIONS

As with all cementitious products in hot weather, take adequate measures to protect it from exposure to direct sunlight and hot winds.

No water curing is requested.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

NOTE

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