ROCK DURE 14

Epoxy Resin Patching Mortar

PRODUCT DESCRIPTION

Rock Dure 14 is a solvent-free, three-component, thixotropic patching mortar based on a combination of epoxy resins and selected quartz aggregates.

USES

Rock Dure 14 contains a medium degree of aggregates filling and therefore can be used in a number of varying applications:

- As repair and bonding mortar on stone, concrete, mortar, rendering, steel,iron, wood etc.
- For vertical and overhead filling of cavities.
- As repair mortar for damaged concrete joint edges and concrete roads.
- As abrasion resistant and impact resistant wearing Layer.
- For structural bonding of wide joint.

ADVANTAGES

Rock Dure 14 is available in three different grades of reactivity: normal, rapid and long pot life. Other benefits are:

- Rapid hardening according to grade used.
- Suitable for both, dry and damp substrates.
- Shrinkage-free hardening.
- Curing is not affected by high humidity.
- Good adhesion to concrete.
- High mechanical strengths.
- Abrasion and impact resistant.
- Components of different colours (mixing Control).

PRODUCT DATA

COLOUR

Grey (Comp. (A) : white, Comp. (B) : black, Comp. (C) : sand).

PACKAGING

10 Kg units (A+B+C).
10 Kg pails (A/B).
30 Kg pails (A/B).
25 Kg bags (C)

STORAGE

Store at temperatures between +5°C and +30°C

SHELF LIFE

24 months from date of production if stored properly in original unopened packing.

TECHNICAL DATA

DENSITY (20°C)

Comp. (A):	1.7kg/l.
Comp. (B):	1.7kg/l.
Comp. (C):	1.5 kg/l (bulk density).
Comp. (A + B + C):	2.0 kg/l (mixed mortar).

COEFFICIENT OF THERMAL EXPANSION

26×10^{-6} per °C (temp. range -10°C to +40°C).

MECHANICAL STRENGTHS

	Normal/Rapid Type: after 10 days at + 10-20°	L.P. Type: after 10 days at + 20-30°C
Compressive strength (ASTM-D-695)	65 - 75 N/mm^2	55 -65 N/mm^2
Normal type: After 24 hrs. at + 20°C:	45 - 55 N/mm^2	
Rapid type: After 24 hrs. at + 5°C:	40 - 50 N/mm^2	
L.P. type: After 24 hrs. at + 30°C:		40 - 50 N/mm^2
Flexural strength (ASTM-D-790)	25 - 35 N/mm^2	20 - 30 N/mm^2
Tensile strength (ASTM-D-638)	10 - 15 N/mm^2	10 - 15 N/mm^2
Bond strength to concrete (DIN 53232)	concrete failure	concrete failure
Bond strength to Steel	10 - 15 N/mm^2	10 - 15 N/mm^2

MODULUS OF ELASTICITY (STATIC)

9' 000 N/mm^2.

APPLICATION DETAILS

COVERAGE	1 m^2: approx. 2 kg (1 mm thickness).
SURFACE PREPARATION	All surfaces must be clean, free from oil, grease, rust, scale, frost, standing water and all loosely adhering particles. Cement laitance must be removed. Concrete must be 3 - 6 weeks old depending on climate, sand / water blasting, grinding, scrabbling are recommended.
PRIMING	Primer is not required, except on damp concrete surfaces, where the use of Comp. (A+B) of the mortar as primer is recommended.
MIXING RATIO	Comp. (A: B:C) = 2:1:3 parts by weight Normal//Rapid/L.P. 2:1:4 parts by volume Normal//Rapid/L.P.
MIXING	Mix components (A + B) together for at least 2 minutes with a low speed electric drill (max. 500 R.P.M.). until a smooth consistency and streak free color are achieved. Then add component (C) and continue until mixing is homogeneous. Avoid entrapping air.
APPLICATION METHOD	Apply directly to the prepared substrate by spatula, trowel or glove protected hand, depending on application. When working on damp substrates, it is advisable to prime first with Comp. (A+B) of the mortar.
CLEANING	Clean all tools and equipment immediately after use with Cleaner.

POT LIFE

°C	4 kg Normal	4 kg Rapid	10kgL.P.
40	-	-	~40min.
30	~ 20min.	~ 10 min.	~1hrs.
20	~ 1 hrs.	~ 30 min.	~2hrs.
10	~ 2 hrs.	~ 1hrs.	–
5	~ 3 hrs.	~ 1.5 hrs.	-

IMPORTANT

Optimal working temperatures for each grade are:
Normal Type: 10°C - 30°C.
Rapid Type: 5°C - 15°C.
L.P. Type: 25°C - 40°C.
When working at a higher temperature than recommended, the pot life will be shortened.
Similar when working at lower temperatures, the material will become more difficult to apply and takes longer to harden.
Where the working temperature will be above 45°C, please consult our Technical Service.
Maximum thickness per coat: 6 cm.
Minimum age of new concrete: 3- 6 weeks, depending on climate.

SAFETY INSTRUCTIONS

ECOLOGY	Components (A + B) contaminate water. Do not dispose of into water or soil but according to local regulations.
TRANSPORT	Comp. A/C: Non-hazardous. Comp. B Normal: 8/65 c).
SAFETY PRECAUTIONS	Product may cause skin irritation. Wear gloves and goggles. If the material is accidentally splashed into the eyes, flush immediately with plenty of warm water and seek medical attention without delay.
TOXICITY	Comp. A/B: Class.4, under the relevant Swiss health and safety codes. Observe warning on packing. Comp. C: Non-toxic under the relevant Swiss health and safety codes.

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