

DUROFAST



Quick setting cement



PROPERTIES

Ultra fast setting cement that hardens in a few minutes time. From the first seconds of mixing it with water, it develops its early mechanical strengths. Its open (working) time is 1-2 minutes, at 23°C, and its curing time is 3 minutes to hard set. Suitable to mix with sand-gravel and regular Portland cement in various proportions so as to influence and regulate the setting time, allowing for high early strengths without shrinkage, while increasing the watertight properties of the hardened product. Depending on the manufacturing requirements, it minimizes the setting time thus resulting in the significant reduction of frost damage. Classified PCC R3 as a concrete repair product, per EN 1504-3.

ADVANTAGES

- Ready to use by mixing it only with water.
- It has high adhesion to the substrate and excellent workability.
- Contains corrosion inhibitor.
- It does not shrink and does not crack.
- Excellent strength and water tightness.

- Resistant to frost, moisture, carbonation, and corrosion.
- Does not contain chlorides or corrosive ingredients.
- Can accept loads immediately.
- It cures underwater without losing its strength.
- Ideal for applications where instantaneous termination of water penetration is required.

APPLICATIONS

By just adding water, use DUROFAST for immediate plugging of surface water leaks in tanks, wells, pipes, gutters and cement pipes.

- Ideal for securing posts for railing and wire fencing, store signs etc.
- It rapidly secures plumbing and electrical parts during installations. Suitable for interior and exterior use.

USE

1. Surface preparation

The substrate must be sound, clean and soaked thoroughly.

The technical specifications and directions of use contained in this technical brochure are the results of the knowledge and experience of the company's research and development department, as well as from the real-life applications of the product. The recommendations and suggestions regarding the use of the products are made without guarantee since the respective conditions during their application are beyond the control of the company. For this reason, it is the user's responsibility to make sure that the product is suitable for the intended application as well as the application conditions of the project.

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2. Application

For leaks, empty DUROFAST to a clean container with water, at a ratio of 30% water by the weight of the cement, always depending on the application. Quickly mix to a clay-like consistency, and press firmly to the application point for about 1 minute, until it hardens. When trying for an instantaneous seal, it is not recommended to mix a larger amount than what can be used in 1.5 minutes.

For seals, repairs or to create fast setting cement mortars, the following indicative table specifies the setting acceleration of the cement mortar, as well as their corresponding mechanical strengths.

CONSUMPTION

Depending on the application. Approximately 1.5kg DUROFAST for the preparation of 1lt of hardened mix.

STORAGE

Store in the factory sealed packages, in dry and shaded places protected from moisture and frost, for at least 8 months from production date.

SAFETY DIRECTIONS

The product contains Portland cement. Before use, refer to the cautions on the product packaging or the Material Safety Data Sheet.

NOTE

After hardening, the product is harmless to health and the environment.

PACKAGING

Carton box with 12 pcs of 1kg each one
4kg container (4 bags of 1kg each one)
Paper bag of 20kg on 1,200kg pallet

TECHNICAL SPECIFICATIONS (Measurement conditions 20°C and 50% R.H.)	
Form - Color	Fast setting cement mortar - Gray
Toxic	No
Bulk density of dry mortar	1.15±0.05kg/lt
Water requirement	0.3lt water per 1kg mortar
Application temperature	From +5°C to +30°C
Pot life	Up to 2 min maximum
Chloridess content per EN 1015-17	≤ 0.05%
PRODUCT PERFORMANCES	
Flexural strength, per EN 12190, after:	
• 28 days	≥ 10.00 N/mm ²
Compressive strength, per EN 12190, after:	
• 1 hour	≥ 7.00 N/mm ²
• 24 hours	≥ 16.00 N/mm ²
• 28 days	≥ 30.00 N/mm ²
Adhesion to concrete, per EN 1542	≥ 1.70 N/mm ²
Modulus of elasticity per EN 13412	≥ 15 GPa
Resistance to carbonation per EN 13295	Yes
Thermal compatibility expressed as adhesion to concrete, per EN 13687, after:	
•50 freeze-thaw cycles •30 storm cycles •30 dry heat cycles	≥ 1.50 N/mm ²
Capillary water absorption w, per EN 13057	w ≤ 0.50kg.m-2.h-0,5
Reaction to fire per EN 13501-1	Euroclass A1
Where 1 N/mm ² =1MPa	

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	CURE & HARDENING TIME	MIXING RATIOS	USES	COMPRESSIVE STRENGTH N/mm ²
CEMENTITIOUS PASTES 3'		DUROFAST WATER 1.0 kg 0.3 lt	Waterproofing sealer for tanks, wells etc.	1 hour: 8.0 24 hours: 17.0 28 days: 30.0
CEMENT MORTARS 15'		DUROFAST SAND WATER 5 kg 5 kg 3-4 lt	Sealing and repair mortar for plaster walls, floors, cement screeds etc.	6 hours: 6.0 24 hours: 15.0 28 days: 38.0
		DUROFAST PORTLAND SAND WATER 20 kg 25 kg 80 kg 15-20 lt	Repair mortar for plaster walls, floors, cement screeds etc.	6 hours: 5.0 24 hours: 14.0 28 days: 40.0
CONCRETE 30'		DUROFAST PORTLAND GRAVEL SAND WATER 40 kg 25 kg 150 kg 120 kg 35-45 lt	Cement screeds, non-reinforced concrete, non load bearing walls etc.	6 hours: 3.0 24 hours: 16.0 28 days: 45.0

NOTES

It is recommended to experiment with a small quantity of 1-2kg to achieve the appropriate mixing ratio, before the final use.

The addition of the acrylic emulsion, D-20 or DUROSTOP of DUROSTICK in the mixing water, at a ratio of 1: 2 up to 1: 5, increases its flexibility, water tightness and abrasion resistance. However, the addition alters the cure time.

Do not mix the product with additional water once it starts to set, because it will lose its mechanical strengths.



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