R.O.C. 9®

Responsive Optimum Concrete

High performance and high compressive and bonding strength concrete

Technical Data Sheet

DESCRIPTION

R.O.C.9 is a patented high-performance, single-component concrete designed with cutting-edge nanotechnology for surface enhancement and structure restoration. Its rapid strength development, superior surface bonding, and shrinkage-compensating formulation make it ideal for creating durable, resilient surfaces and structures in demanding environments. Easy to apply and highly versatile, R.O.C.9 is well-suited for many applications.

USES

- Single Compound material repair
- Rapid strength development after 45-60 minutes.
- Superior bond to a wide variety of surfaces
- May be used in multiple layers and for structural application
- High resistance to freeze/thaw applications
- High resistance to sulfate, acid and bacterial attack

Fully customizable

- set time
- self leveling
- compression strength
- composition

INSTRUCTIONS FOR MIXING

For best results clear the area of all loose debris and other surface level contaminants Add 0.6 gallon (2.27 liters) of potable water for each 50 lbs (22.6kg) bag of ROC9 . Using a high-speed drill with a mixing attachment mix for 90 seconds, rest for 90 seconds then mix again for 120 seconds. For larger mixes, a mortar mixer can be used but only mix what can be applied within the specified working time of 60 minutes. Pour ROC9 into repair area starting with the deepest area first.

SAFETY AND HANDLING

Use of product in extreme temperatures will affect set times. For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the Safety Data Sheet (SDS) containing physical, environmental, toxicological and other safety related data. User must read the current Safety Data Sheet before using any products.

Parameter	Time/Value (psi)
Compressive Strength (ASTM C109)	3 hour: 5,976 (41.2 MPa) 1 day: 10,007 (69.0 MPa) 7 day 11,965 (82.5 MPa) 28 day 13,445 (92.7MPa)
Bond Strength – Slant Shear (ASTM C882)	3 hour: 1,885 (13.0 MPa) 1 day: 4293 (29.6 MPa) 7 day: 4003 (27.6 MPa)
Bond Strength - Adhesion (ASTM C1583)	1 day 1176 (8.11 Mpa) 7 day: 1181 (8.14 MPa)
Flexural Strength (ASTM C78)	1 day: 1,282 (8.31 MPa) 7 day: 1,301 (8.76 Mpa)
Freeze Thaw Resistance (ASTM C666, Procedure A)	300 cycles: 101%
Length Change, (ASTM C157 per C928)	Wet-28 day (%) .0094 Dry-28 day (%) .0365

Shelf life

12 month shelf life if properly stored in dry conditions, protected from moisture, out of direct sunlight and in undamaged packaging (based on 80 F)

Mini Slump flow- 335 mm

Set time at 72.5 F (ASTM C403)

Initial set: 70 mins Working time: 60 mins

Reduces CO2 emissions by up to 75%

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