

MasterRoc[®] RBA 380

Highly reactive, thixotropic polyurea silicate anchoring resin for rock bolting

Description

MasterRoc RBA 380 is a fast reacting, two-component, instantly-thickening, solvent-free polyurea silicate anchoring resin specifically designed for rock bolting. Its thixotropic feature facilitates overhead applications without additional sealing.

Applications

- Resin-into-bolt rock bolting at all angles
- Bolt-into-resin rock bolting at all angles
- For the use with steel and glass fiber bolts

Features

- Thixotropic
- Fast curing and rapid strength development
- Long distance pumping capability
- Easy mixing even at low temperatures (> 40 °F (5 °C))
- High structural strength
- Excellent adhesion to damp and low friction substrates
- Does not absorb water or expand when comes in contact with water

Benefits

- Secure and precise injection
- Flexibility in applications
- Reliable rock bolting

Physical Characteristics

Technical Data

Physical properties:

	Color	Viscosity, mPa.s	Density, lb/ft ³ (g/cm ³)
Part A	Colorless	490	86.8 (1.39)
Part B	Dark Brown	150	73.7 (1.18)

Note: Tested at 73 °F (23 °C)

Mixing Ratio: 1:1 by volume

Reaction characteristics:

Testing Temperature	73 °F (23 °C)
Thixotropic Time	Immediately
Setting Time	3 min ± 20 s
Foam Expansion Factor	1
Compressive Strength	> 5000 psi (35 MPa)
Pull-out Strength	≥ 72 kips (24 in.) (320 kN (600 mm))



Guidelines for Use

Dosage and Application Procedure: The Part A and Part B of MasterRoc RBA 380 resin are delivered ready to use. They should be injected in the ratio of 1:1 by volume, using a two-component injection pump equipped with a static in-line mixer nozzle, as shown in the following picture.



Example of a two-component injection pump.

The curing time is dependent on the temperature of the product and of the ground. Store both components at a temperature above 40 °F (5 °C) prior to application.

To achieve a favorable mixing result during injection, the addition of a static in-line mixer in conjunction with the mixing head is strongly recommended. The length of the static mixer should be approximately 12 in. (300 mm).

Equipment: For short breaks in the injection process, pump MasterRoc RBA 380 resin Part A through the nozzle including the static in-line mixer.

After the injection process, pump an appropriate cleaning and maintenance agent (such as MasterRoc MP 230 CLN product) or oil that does not contain any water, through the pump and injection hoses until MasterRoc RBA 380 resin is completely flushed out. Store the pump and hoses with the cleaning agent inside and seal all openings.

Storage and Handling

Storage Temperature and Shelf Life: If stored in dry conditions, in unopened and tightly closed original containers, and within a temperature range of 40 °F to 95 °F (5 °C to 35 °C), the components of MasterRoc RBA 380 resin have a shelf life of 24 months.

Safety: The use of gloves, eye protection, and safety clothes are recommended. Any physical contact (e.g. skin or eyes) with the product should be avoided. If contact with skin occurs, wash thoroughly using soap and water. In case of eye contact, rinse thoroughly with water and seek immediate medical advice.

Uncured products should not be allowed to enter local drainage systems. Spillage must be collected using absorbent materials such as sawdust or sand, and be disposed of in accordance with local regulations.

For further information, refer to the Safety Data Sheet or contact your local Master Builders Solutions representative.

Packaging

MasterRoc RBA 380 resin is available in pails, drums, and totes.

Related Documents

Safety Data Sheet: MasterRoc RBA 380 Resin

Additional Information

For additional information on MasterRoc RBA 380 resin, contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

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