

MasterRoc[®] RBA 380

Highly reactive, thixotropic polyurea silicate injection resin for rock bolt installation

Material Description

MasterRoc RBA 380 is a fast reacting two component polyurea silicate injection resin specifically designed for rock bolt installations. Due to its unique thixotropic behavior, it offers high flexibility which allows for overhead applications without additional sealing.

Areas of Application

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

Characteristics and Benefits

- Secure and precise injection due to its thixotropic properties
- Flexibility in application due to its unique thixotropic properties and long-distance pumping capacity
- Penetrates cracks wider than 0.14 mm
- Increased reliability due to its full-size grouting
- Mixes easily even in low temperatures > 5°C
- High structural strength combined with flexibility
- Injected material shows good adhesion to damp and low friction substrates
- Neither expands its volume with water nor absorbs water
- Keep people safe during bolting due to its fast curing and strength development
- Fire resistant according to DIN 4102-2 Class B2

Packaging

25 l cans, 200 l drums and 1000 l IBC. Special packaging on request.

Technical Data

	Color	Viscosity mPa·s	Density kg/dm ³
Part A	Colorless	490	1.39
Part B	Dark brown	150	1.18

Tested at 23° C, density tested at 20° C

Mixing ratio: 1 to 1 by volume

Reaction Characteristics

Testing temp.	23°C
Thixotropic time	Immediately
Setting time	180s ± 20s
Foam expansion factor	1
Compressive strength	> 35 MPa
Pull-out strength According to DIN 21521	≥ 320 kN (600 mm)
Penetration capacity	≥ 0.14 mm

Application Procedure

Part A and B are delivered ready to use. They are injected in the proportion of 1:1 by volume using a two-component injection pump equipped with a static in-line mixer nozzle, as shown below:



example of a two-component injection pump

Please note: The curing time is dependent on the temperature of the product and ground. Please store both components prior to application at a temperature of at least +5°C.

To achieve a favorable mixing result during injection the addition of a static in-line mixer in connection with the mixing head is strongly recommended. The static mixer should at least consist of 16 cross-mixing elements.

Cleaning of Injection Equipment

For short breaks in the injection procedure pump part A through the nozzle including the static in-line mixer. After the injection process pump an appropriate cleaning and maintenance agent (MasterRoc MP 230 CLN) or oil containing no water, through the pump and injection hoses until MasterRoc RBA 380 is completely washed out. Store the

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pump and hoses with the cleaning agent inside and seal all openings.

Storage

MasterRoc RBA 380 has a shelf life of 24 months if stored in original, unopened packaging between +5 °C to +35°C. The storage area must be kept dry.

Precautions

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 an eyebath filled with water and seek medical advice. The cured product is harmless and inert.

Uncured products should not enter the local drainage system. Spillage must be collected using absorbent materials such as sawdust and/or sand and disposed of in accordance with local regulations.

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

Disclaimer

The information given here is true, represents our best knowledge and is based not only on laboratory work but also on field experience. However, because of numerous factors affecting results, we offer this information without guarantee and no patent liability is assumed. For additional information or questions, please contact your local representative.

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