

MasterRoc[®] MP 309

Low viscosity, fast reacting acrylic resin with high compressive strength for consolidation of sandy and silty strata

Material Description

MasterRoc MP 309 is a highly reactive two-component acrylic grouting resin with a low viscosity for good penetration. The product cures quickly, forming a hard, com-pact resin with high compressive strength for ground consolidation.

Areas of Application

- Ground consolidation, especially of silty and sandy soils
- Slope stabilization in rock

Characteristics and Benefits

- Hard compact material with high compressive strength of > 9 MPa (injected into DIN ISO 196 sand).
- Good bond strength to fractured rock, even under wet conditions.
- Very low viscosity (close to water) allows deep penetration into very fine cracks and sandy soil.
- Develops mechanical strength quickly.
- Good chemical resistance against acids, bases, solvents, fuels, etc.
- Environmentally friendly: Harmless in contact with groundwater and no emission of dangerous substances.

Packaging

Standard packaging
 MasterRoc MP 309 Resin: 20 kg can
 MasterRoc MP 309 Accelerator: 5 kg can
 MasterRoc MP 309 Part B 20 kg can
 MasterRoc MP 309 Hardener: 0.4 kg can
 Also available in:
 Resin and Part B 200 kg drum or 1000 kg IBC
 Accelerator 20 kg can or 200 kg drum
 Hardener 25 kg bag

Technical Data

MasterRoc MP 309 Resin

Appearance Clear liquid
 Viscosity (20° C) 13 mPa·s
 Density (20° C) 1.07 kg/l

MasterRoc MP 309 Accelerator

Appearance Clear liquid
 Viscosity (20° C) 280 mPa·s
 Density (20° C) 1.12 kg/l

MasterRoc MP 309 Part B

Appearance Clear liquid
 Viscosity (20° C) 10 mPa·s
 Density (20° C) 1.04 kg/l

MasterRoc MP 309 Hardener

Appearance White solid
 Density (20° C) Approx. 2.6 kg/l

Mixed material

(mixing ratio Resin: Part B of 1:1)
 Appearance Clear liquid
 Viscosity (20° C) 13 mPa·s
 Density (20° C) 1.07 kg/l
 Gel time (20° C) 1 to 9 minutes
 Final curing (20° C) 10 to 20 minutes

Application Procedure

Premix the Resin (20 kg) with 1.25% (0.25 kg) to 25% (5.0 kg) of Accelerator to activate it prior to use. The amount of Accelerator is adjusted to the needed pot life (see Table 1). To activate Part B, dissolve 2 % (0.4 kg) of Hardener in 8.5 % (1.7 l) of water. Then mix the solution into Part B (20kg). The activated Resin and Part B have a pot life of ap-prox. 5 hours at 20 °C. The activated components are injected in the ratio of 1:1 by volume, using a two-component injection pump, equipped with a static in-line mixer.

Table 1: Hardener dosage to adjust gel time

Amount of MasterRoc MP 309 Accelerator		Gel time at 10°C	Gel time at 20°C
[%]	[g] per 20 kg Resin	[min]	[min]
1.25	0.25	12:28	09:06
2.5	0.5	08:03	05:28
5.0	1.0	04:23	03:34
7.5	1.5	03:38	02:35
10.0	2.0	03:08	02:24
12.5	2.5	02:58	02:13
25.0	5.0	02:27	01:42

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Please Note: The reaction time is dependent on the temperature of the components and the ambient.
Note: MasterRoc MP 309 is not suitable for void filling.

Cleaning of Injection Equipment

Equipment can easily be cleaned of uncured material using water (if possible, with a detergent).

Storage

In unopened, tightly closed containers, the components of MasterRoc MP 309 can be stored for up to 12 months, if kept dry and within a temperature range of +10 °C to +30 °C, protected from sunlight.

Precautions

Please refer to the Material Safety Data Sheet for further safety measures.

Avoid contact with skin and eyes by using the required personal protective equipment, such as overalls, gloves, and safety glasses.

If contact with skin occurs, wash thoroughly using soap and water. If contact with eyes occurs, rinse thoroughly with water and seek medical advice. The cured Master-Roc MP 309 is harmless.

Uncured products should be prevented from entering local drainage systems and water courses. Spillage must be collected using absorbent materials such as sawdust and sand and disposed of in accordance with local regulations.

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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