

MasterRoc[®] MP 309

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

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, compact resin with high compressive strength for ground consolidation.

TYPICAL APPLICATIONS

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

ADVANTAGES

- Hard compact material with high compressive strength of >9MPa (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

MasterRoc MP 309 Resin: 20kg can
MasterRoc MP 309 Accelerator: 5kg can
MasterRoc MP 309 Part B: 20kg can
MasterRoc MP 309 Hardener: 0.3kg can

Also available in:
Resin and Part B 200kg drum or 1000kg IBC
Accelerator 20kg can or 200kg drum
Hardener 25kg bag

TYPICAL PROPERTIES*

MasterRoc MP 309 Resin

Appearance Clear liquid
Viscosity (20°C) 13 mPa·s
Density (20°C) 1.07kg/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) 1.04kg/l

MasterRoc MP 309 Hardener

Appearance White solid
Density (20°C) Approx. 2.6kg/l
Mixed material (mixing ratio Resin: Part B of 1:1)
Appearance Clear liquid
Viscosity (20°C) 13 mPa·s
Density (20°C) 1.07kg/l
Gel time (20°C) 1 to 9 minutes
Final curing (20°C) 10 to 20 minutes

APPLICATION GUIDELINES

Premix the Resin (20kg) with 1.25% (0.25kg) to 25% (5kg) 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 1.5% (0.3kg) of Hardener in 11% (2.2 l) of water. Then mix the solution into Part B (20kg).

The activated Resin and Part B have a pot life of approx. 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.

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Table 1: Accelerator dosage to adjust gel time

Amount of MasterRoc MP 309 Accelerator		Gel time at 10°C (min)	Gel time at 20°C (min)
(%)	(kg) per 20kg Part B		
1.25	0.25	16:28	08:46
2.5	0.5	11:25	05:53
5.0	1.0	03:23	02:30
7.5	1.5	02:18	01:37
10.0	2.0	01:52	01:16
12.5	2.5	01:38	01:09
25.0	5.0	01:05	00:48

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 AND SHELF LIFE

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.

HEALTH AND SAFETY

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 **MasterRoc 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.

* Properties listed are based on laboratory controlled tests.

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