

# MasterRoc<sup>®</sup> MP 307 CE

**Low viscosity, fast reacting acrylic resin for permanent water sealing and layer curtaining of concrete and masonry**

## DESCRIPTION

**MasterRoc MP 307 CE** is a highly reactive two-component acrylic sealing resin with a low viscosity for good penetration. The product cures quickly, forming a rubber-like resin with the ability to withstand certain ground and crack movement. **MasterRoc MP 307 CE** is especially designed for concrete repair and is CE certified according to EN 1504-5.

## FIELDS OF APPLICATION

- Concrete repair - swelling fitted filling of cracks and fissures (EN 1504-5: category S)
- Curtain injection
- Permanent water sealing of tunnel and shaft concrete linings and masonry
- Stopping of minor water inrush through cracks
- Injection hose applications
- Ground stabilization

## FEATURES AND BENEFITS

- Upon curing forms a highly flexible compact resin with good adhesion properties even on damp and wet surfaces.
- Due to the special latex emulsion of Part B the cured system is rubber-like and strong but still extremely flexible.
- Very low viscosity (close to water) allows deep penetration at low pressure into very fine cracks or fissures and long flow paths.
- Withstands a permanent water pressure of more than 12 bar.
- Superior flexibility (elongation at break >300%) enabling balance of ground movements or settlements.
- Not sensitive to water and always stays close to its original shape (maximum change of mass -15% to +20%).
- Neither the liquid nor the cured resin is corrosive and is therefore suitable for reinforced concrete structures.
- Good chemical resistance against acids, bases, solvents, fuels, etc.

- Environmentally friendly: harmless in contact with groundwater and does not emit any dangerous substances.

## PACKAGING

**MasterRoc MP 307 CE** Resin: 20kg can  
**MasterRoc MP 307 CE** Accelerator: 1kg can  
**MasterRoc MP 307 CE** Part B: 20kg can  
**MasterRoc MP 307 CE** Hardener: 0.3kg can

## TECHNICAL DATA\*

### MasterRoc MP 307 CE Resin

Appearance	Clear liquid
Viscosity (20°C)	5 mPa·s
Density (20°C)	1.05kg/l

### MasterRoc MP 307 CE Accelerator

Appearance	Clear liquid
Viscosity (20°C)	2 mPa·s
Density (20°C)	0.93kg/l

### MasterRoc MP 307 CE Part B

Appearance	White liquid
Viscosity (20°C)	12 mPa·s
Density (20°C)	1.01kg/l

### MasterRoc MP 307 CE Hardener

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

### Mixed material (mixing ratio Resin : Part B of 1:1)

Appearance	White liquid
Viscosity (20°C)	7 mPa·s
Density (20°C)	1.03kg/l
Gel time (20°C)	3 to 22 minutes
Final curing (20°C)	10 to 25 minutes

## APPLICATION PROCEDURE

Premix the Resin (20kg) with 5% of accelerator (1kg) to activate it prior to use.

To prepare Part B, dissolve 0.20% (40g) to 5% (1kg) of hardener powder into 20 l of Part B and (the same volume of Part B as of activated

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resin). The amount of hardener is adjusted to the needed pot life (see Table 1).

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 or by premixing the two components thoroughly and using a one-component pump (long open time needed).

For steel reinforcement injection, the amount of hardener powder should be limited to 1.5% (e.g. 300g).

**Table 1: Hardener dosage to adjust gel time**

Amount of MasterRoc MP 307 CE Hardener			
(%)	(g) per 20kg Part B	Gel time at 10°C (min)	Gel time at 20°C (min)
0.2	40	24:18	22:00
0.25	50	21:42	20:17
0.5	100	17:15	15:17
1	200	13:10	09:40
1.5	300	09:40	07:10
3	600	05:46	04:30
5	1000	03:40	03:30

*CE certification tests have been carried out with 0.25% of Hardener powder.*

Please Note: The reaction time is dependent on the temperature of the components and the ground.

The components can be prepared accordingly using water instead of **MasterRoc MP 307 CE** Part B. Please note that for this composition, the CE testing has not been done.

## 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 307 CE** 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.

## SAFETY 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 **MasterRoc MP 307 CE** 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.

# MasterRoc<sup>®</sup> MP 307 CE

	
<b>MasterRoc<sup>®</sup> P 307 CE</b>	
<b>BASF SE</b> <b>Underground Construction</b> <b>Salzachstrasse 2-12</b> <b>68199 Mannheim</b> <b>Germany</b>	
12	
<b>EN 1504-5</b>	
<b>Injection product for swelling fitted filling of cracks, fissures and voids</b>	
<b>U (S2) W (1) (1/2/3) (5/40)</b>	
Water tightness	7 · 10 <sup>5</sup> Pa
Viscosity	≤ 60 mPa.s
Corrosion behavior	no corrosion
Change in volume / mass by air drying and water immersion	Air drying: approx. -15% Water immersion: approx. +20%
Sensitivity to water	passed
Sensitivity to wet-drying cycles	passed
Compatibility with concrete	passed
Application temperature	+5°C to +40°C
Dangerous substances	Comply with 5.4

\* Properties listed are based on laboratory controlled tests.

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