

MasterRoc MP 355

Highly reactive, two component polyurethane injection foam to stop high volume water ingress and for ground consolidation

Material Description

MasterRoc MP 355 is a two component, solvent-free polyurethane injection resin specifically designed for rapid water stopping and ground consolidation.

Areas of Application

- Permanent stopping of high volume water ingress in underground structures
- Also suitable for cold water
- Ground consolidation

Characteristics & Benefits

- On contact with water, the product forms a rigid foam.
- Without the presence of water, the product also reacts and forms a hard substance. This is a significant safety advantage, as the material never remains uncured.
- On contact with water the reaction is completed within a short period of time.
- Provides structural strength and rigidity.

Technical Data

At 20°C	Color	Viscosity mPa.s	Density kg/l
Part A	Yellowish	320	1.00
Part B	Dark brown	240	1.23
Accelerator 10	Yellowish	500	1.00
Accelerator 15	Yellowish	1000	1.00
Accelerator 25	Yellowish	20	0.90

Application

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.

Please note: The foaming reaction time is dependent on the temperature of the product, and the ground water.

MasterRoc MP 355's properties can be altered by the use of three different accelerators:

- MasterRoc MP 355 Accelerator 10
- MasterRoc MP 355 Accelerator 15
- MasterRoc MP 355 Accelerator 25

For a high foaming factor (approximately 20-25) and a rapid reaction for water stopping: Add the Accelerator 10 to Part A by 0.5 - 1% dosage (by weight of Part A).

For a dense foam (factor 7-9) with high mechanical strength for ground consolidation: Add the Accelerator 15 to Part A by 0.5 - 1% dosage (by weight of Part A).

The reaction Accelerator 25 combines the functions of Accelerator 10 and Accelerator 15. If a big amount of water is expected in soil or rock and a strong foam with a low expansion factor is needed, Accelerator 25 should be added to Part A by 0.1 - 0.5% dosage (by weight of Part A).

If a particularly rapid reaction is required, one can additionally premix water to Part A, 2% by volume of Part A.

After the addition of accelerator (and water if added) to Part A, the can should be shaken vigorously to ensure even dispersion throughout the resin prior to injection works.

To achieve the best mixing of the components during injection, the inclusion of a static in-line mixer in connection with the mixing head is strongly advised. The length of the static mixer should be approximately 32 cm.

Note: MasterRoc MP 355 is not suitable for large volume void filling. n time depends on the temperature of the product and the ground. As indicated in Table 1, the reaction times at different temperatures have been measured in the laboratory. Site trials should therefore be performed in advance.

Reaction Time

The reaction time depends on the ground and product temperature, as well as the accelerator dosage (see Table 1). Site trials should be performed in advance to establish the required reaction time.

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Cleaning of Injection Equipment

For short breaks in the injection procedure, pump Part A through the in-line static mixer nozzle. After finishing the injection, pump an appropriate agent or oil which does not contain water through the pump and injection lines.

Packaging

Part A: 25 kg cans and 200 kg drums
Part B: 30 kg cans and 240 kg drums

Storage & Shelf Life

If stored in dry conditions in unopened, tightly closed original containers and within a temperature range of +5°C and +35°C, the components of **MasterRoc MP 355** have a shelf life of 24 months.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

Disclaimer

MasterRoc-MP 355 -ANZ-V8-0723

STATEMENT OF RESPONSIBILITY

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