

3	03 64 00	Injection Grouting
31	31 01 70	Maintenance of Tunneling and Mining
	31 73 00	Tunnel Grouting

MasterRoc[®] MP 355 IK

One component polyurethane injection foam to stop small to medium water ingress

Description

MasterRoc MP 355 IK product is a solvent free, one component polyurethane resin which turns into a foam when it comes in contact with humidity or moisture.

Applications

- To stop small to medium water ingress in underground structures
- Filling of voids containing water
- Crack injection of above or below grade structures, including water/wastewater tanks, storm pipes, manholes, culvert joints, and dams

Features

- Gets activated in moist environment
- Good bonding to wet surfaces
- Modification of the foaming action can be achieved using an accelerator

Benefits

- Rapid reaction and excellent bonding feature make it more effective to stop water ingress
- Adjustable reaction time with the associated accelerator provides application flexibility

Performance Characteristics

Technical Data

MasterRoc MP 355 IK Resin

Density at 68 °F (20 °C):	72.4 lb/ft ³ (1.16 g/cm ³)
Viscosity at 73 °F (23 °C):	320 mPa.s
Color:	Brown
Application temperature: °C)	40 °F to 105 °F (5 °C to 40 °C)
Maximum foam expansion rate: (10% accelerator dosage)	25 – 30

MasterRoc MP 355 IK Accelerator

Density at 68 °F (20 °C)	61.2 lb/ft ³ (0.98 g/cm ³)
Viscosity at 73 °F (23 °C)	320 mPa.s
Color:	Clear to yellowish

Guidelines for Use

Dosage and Application Procedure: Add the MasterRoc MP 355 IK Accelerator (up to 10% by volume of the resin, depending on the required reaction time) to MasterRoc MP 355 IK Resin. Mix thoroughly and quickly. Inject the mixture through a single component injection pump. The moisture / water in the ground will activate the foaming reaction. In the case of dry ground, flush the space with water before injecting the product.

Reaction Time: The reaction time depends on the temperature of the ground and that of the MasterRoc MP 355 IK resin, as well as the accelerator dosage. Table I below shows the reaction time based on laboratory trials. Field trials should be performed in advance to establish the required reaction time.

Table I: Reaction time with 10% moisture and 10% accelerator

Initial Temperature*	40 °F (5 °C)	50 °F (10 °C)	60 °F (15 °C)	68 °F (20 °C)
Start of reaction (seconds)	120	60	25	10
End of reaction (seconds)	300	200	110	50
Foam expansion rate (approximate)	25	25	25	30

*temperature of both the product and water during the test

Cleaning of Injection Equipment: During short breaks or intervals longer than an hour in the injection process, fill the pump and hoses with non-accelerated MasterRoc MP 355 IK Resin to avoid blockages.

After the injection process, pump an appropriate cleaning and maintenance agent (such as MasterRoc MP 230 CLN product) or an oil containing no moisture, through the pump and injection hoses until MasterRoc MP 355 IK Resin is completely flushed out. Store the pump and hoses with the cleaning agent inside and seal all the openings.

Storage and Handling

Storage Temperature and Shelf Life: MasterRoc MP 355 IK Resin and MasterRoc MP 355 IK Accelerator must be stored in airtight containers in a cool, dry place within a temperature range of 40 °F and 95 °F (5 °C and 35 °C). If stored in original containers under the above mentioned conditions, the MasterRoc MP 355 IK products have a shelf life of 24 months. MasterRoc MP 355 IK products must be protected from freezing.

Safety: MasterRoc MP 355 IK Resin and MasterRoc MP 355 IK Accelerator are non-hazardous. However, standard safety procedures when handling chemical products should be followed (including wearing gloves and safety glasses).

Avoid eye and skin contact. If skin contact occurs, wash with plenty of water and soap. In case of eye contact, rinse with plenty of water and seek medical advice.

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.

Packaging

MasterRoc MP 355 IK Resin is available in 6 gal (22 L) pails.

MasterRoc MP 355 IK Accelerator is available in 0.7 gal (2.5 L) bottles.

Related Documents

Safety Data Sheets: MasterRoc MP 355 IK Resin and MasterRoc MP 355 IK Accelerator

Additional Information

For additional information on MasterRoc MP 355 IK Resin and MasterRoc MP 355 IK Accelerator, contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

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