

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



# MasterRoc<sup>®</sup> MP 355 IK DW

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

## Description

MasterRoc MP 355 IK DW product is a solvent free, single component polyurethane resin which turns into 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
- Forms a flexible foam
- 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 DW Resin

Density at 68 °F (20 °C)	72.4 lb/ft <sup>3</sup> (1.16 g/cm <sup>3</sup> )
Viscosity at 73 °F (23 °C)	700 mPa.s
Color	Yellowish
Application temperature	40 °F to 105 °F (5 °C to 40 °C)
Maximum foam expansion rate (10% accelerator dosage)	20 – 30

#### MasterRoc MP 355 IK Accelerator

Density at 68 °F (20 °C)	61.2 lb/ft <sup>3</sup> (0.98 g/cm <sup>3</sup> )
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 to MasterRoc MP 355 IK DW Resin (up to 10%, depending on the required reaction time). Mix quickly and thoroughly. Inject the mixture through a single component injection pump. The moisture / water in the ground will generate a foaming reaction. In the case of dry ground, flush the borehole with water before injecting the product.

**Reaction Time:** The reaction time depends on the temperatures of the ground and MasterRoc MP 355 IK DW Resin, as well as the accelerator dosage. Table 1 below shows the reaction time based on laboratory trials. Field trials should be performed in advance to establish the required reaction time.

**Table 1:** 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)	130	65	30	15
End of reaction (seconds)	350	250	120	60
Foam expansion rate (approximate)	20	25	25	30

\*temperature of both the product and water during the test

**Cleaning of Injection Equipment:** During short breaks or intervals in the injection process, the pump and hoses should be filled with non-accelerated MasterRoc MP355 IK DW 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 DW Resin is completely flushed out. Store the pump and hoses with the cleaning agent inside and seal all openings.

## Storage and Handling

**Storage Temperature and Shelf Life:** MasterRoc MP 355 IK DW 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 DW Resin and MasterRoc MP 355 IK Accelerator have a shelf life of 24 months. MasterRoc MP 355 IK DW Resin and MasterRoc MP 355 IK Accelerator must be protected from freezing.

**Safety:** MasterRoc MP 355 IK DW 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 DW 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 DW Resin and MasterRoc MP 355 IK Accelerator

## Additional Information

For additional information on MasterRoc MP 355 IK DW 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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