MasterRoc® MP 358 SC
Highly-reactive, two-component hydrophobic polyurethane injection resin for strata consolidation

Description
MasterRoc MP 358 SC is a two component, solvent-free polyurethane injection resin specifically designed for rapid stabilization of strata.

Applications
Recommended for use in:
- Consolidation of broken coal in development of roadways and longwalls
- Consolidation of fractured rock in roadways, shafts and longwalls
- Sealing against gas and quasi-static water
- Repair of cracks in concrete

Features
- Fast reacting material where structural strength and flexibility are required
- Reacted product expands its volume up to three times without being in contact with water
- When in contact with water, the foam factor may increase to about 8

Benefits
- Penetrates cracks wider than 0.005 in. (0.14 mm)
- Less sensitive to water than normal polyurethanes
- Contact with water shows almost no increase in reaction temperature

Performance Characteristics

Technical Data (Typical)

<table>
<thead>
<tr>
<th></th>
<th>Color</th>
<th>Viscosity cP (mPa.s)</th>
<th>Density lb/ft³ (kg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>Dark yellow</td>
<td>300 (300)</td>
<td>63.0 (1.01)</td>
</tr>
<tr>
<td>Part B</td>
<td>Dark brown</td>
<td>300 (300)</td>
<td>76.0 (1.22)</td>
</tr>
</tbody>
</table>

Tested at 73 °F (23 °C)
Flash point for both Part A and Part B: > 390 °F (200 °C)
Mixing ratio, Part A to Part B: 1:1 by volume

Reaction Characteristics

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Testing temperature</td>
<td>77 °F (25 °C)</td>
</tr>
<tr>
<td>Start of foaming</td>
<td>45s ± 15s</td>
</tr>
<tr>
<td>End of foaming</td>
<td>70s ± 10s</td>
</tr>
<tr>
<td>Foam expansion factor</td>
<td>~ 3</td>
</tr>
<tr>
<td>Flexural adhesive strength (24 h)</td>
<td>&gt; 870 psi (6 MPa)</td>
</tr>
<tr>
<td>Border time*</td>
<td>&lt;10 min</td>
</tr>
</tbody>
</table>

*Border time: Time needed to reach 145 psi (1 MPa) adhesive strength in lab conditions
Guidelines for Use

Application procedure: Parts 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.

Special requirements: The curing time is significantly dependent on the temperature of the resin and the injected strata. Store both components prior to application at a minimum temperature of 60 °F (15 °C).

To achieve the best mixing of the components during injection, use a static in-line mixer either with the mixing head or in the packer. The length of the static mixer should be approximately 12.5 in. (320 mm) for correct mixing.

Cleaning of injection equipment: For short breaks in injection, pump only Part A through the mixing head to avoid blockages. For cleaning, a flushing agent for polyurethane resin should be used. Afterwards, the complete system should be filled with a water-free conserving agent for pumps, such as engine oil.

Storage and Handling

If stored in dry conditions, in unopened, tightly closed, original containers and within a temperature range of 40 °F and 95 °F (5 °C and 35 °C), the components of MasterRoc MP 358 SC resin have a shelf life of 24 months.

Safety precautions: 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 an eyebath filled with water and seek medical advice. The cured product is harmless. Uncured liquid materials 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 358 SC resin is available in the following packaging:

- **Part A:** 5 gal (20 L) pails
  49 gal (185 L) drums
- **Part B:** 5 gal (20 L) pails
  49 gal (185 L) drums

Related Documents

Safety Data Sheets: MasterRoc MP 358 SC resin – Part A
MasterRoc MP 358 SC resin – Part B
Additional Information

For additional information on MasterRoc MP 358 SC injection resin, contact your local sales representative.

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Utilizing worldwide resources, the Master Builders Solutions community of experts are passionate about providing solutions to challenges within all stages of construction, as well as the life cycle of a structure. At Master Builders Solutions we create sustainable solutions for construction around the globe.

Limited Warranty Notice

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