

MasterRoc[®] MP 364 Flex

Highly-reactive, two-component fire-resistant polyurea-silicate injection resin for strata consolidation

Formerly MEYCO MP 364 Flex*

Description

MasterRoc MP 364 Flex is a two-component, solvent-free polyurea-silicate injection resin specifically designed for rapid stabilization of strata.

Applications

Recommended for use in:

- Consolidation of coal and rock strata in development and mining
- Consolidation of fractured rock in roadways, shafts and longwalls
- Slope stabilization
- Sealing against gas and water
- Repair of concrete cracks
- Underwater applications

Features

- Neither expands its volume with water nor absorbs water
- Penetrates cracks wider than 0.006 in. (0.14 mm)
- Shows good adhesion to wet and low friction substrates
- Equally fast reaction in dry or underwater conditions
- Very fast reacting material applied where structural strength and flexibility is required
- Fire resistant

Benefits

- Shortens down-times during injection operations
- Reduces rock falls typically resulting from unstable ground conditions
- Increases worker safety due to lower exotherm temperatures
- Increases productivity

Performance Characteristics

Technical Data

	Color	Viscosity cP (mPa.s)	Density lb/ft ³ (kg/m ³)
Component A	Colorless	300 (300)	93 (1,490)
Component B	Dark Brown	150 (150)	74 (1,180)

Viscosity tested at 77 °F (25 °C), Density tested at 68 °F (20 °C)

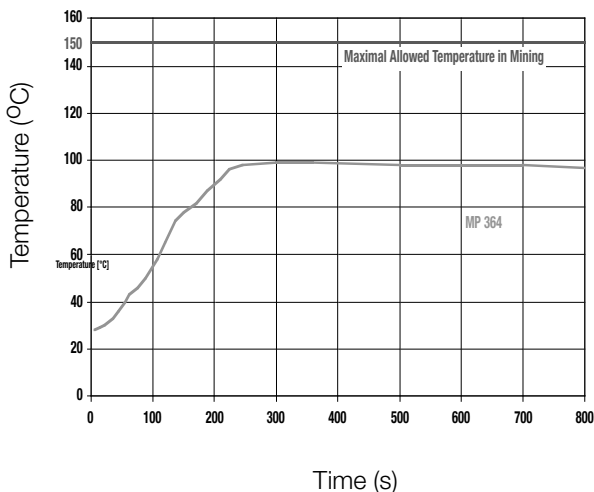
Flash point	A – not applicable, B > 390 °F (200 °C)
Mix ratio [A:B]	1:1 by volume (100:79 by mass)

Reaction Characteristics

Testing temperature	73 °F (23 °C)
Flow time	90 ± 30 s
Setting time	2 min 30 s ± 30 s
Foam expansion factor	1
Max. reaction temperature	210 °F (99 °C)
Max. bonding strength	900 psi (6.3 N/mm ²)
Max. deformation work	1,030 lb-ft (1,400 Nm)
Border time*	< 5 min

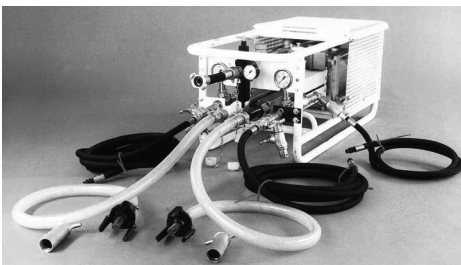
*Border time: Time needed to reach 1 MPa bonding strength in lab conditions.

Temperature development during the curing reaction



Guidelines for Use

Application Procedure: Components 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 (shown below) equipped with a static in-line mixer.



Special Requirements: The curing reaction 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 59 °F (15 °C).

Mixing: To achieve the best mixing of the components during injection, the inclusion of a static in-line mixer in connection with the mixing head or in the packer is essential. The length of the static mixer should be approximately 12.6 in. (320 mm) for correct mixing.

Cleaning of Injection Equipment: For short breaks in injection, pump only Component A through the mixing head and supply hose. After injection and prior to storage of the equipment, pump water through the A lines and clean engine oil through the pump and injection lines of B-component. For cleaning, a flushing agent for polyurethane resin should be used. Afterwards, fill the complete system with engine oil. Do not use hydraulic oil.

Storage and Handling

If stored in dry conditions, in unopened, tightly closed original containers and within a temperature range of 41 °F (5 °C) and 95 °F (35 °C), the components of MasterRoc MP 364 Flex resin have a shelf life of 12 months.

Caution: Component A is frost sensitive! Do not allow product to freeze.

Product Notes

Safety Precautions: Avoid contact with skin and eyes by using the required personal protective equipment, such as overalls, gloves and eye goggles. 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 products are harmless. Uncured products should be prevented from entering local drainage system 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 364 Flex resin is available in the following packaging:

Component A: 65.3 lb (29.6 kg) pails
657 lb (298 kg) drums
3,386 lb (1,536 kg) totes

Component B: 51.6 lb (23.4 kg) pails
520.3 lb (236 kg) drums
2,676 lb (1,214 kg) totes

Related Documents

Safety Data Sheets: MasterRoc MP 364 Flex resin, Comp. A
MasterRoc MP 364 Flex resin, Comp. B

Additional Information

For additional information on MasterRoc MP 364 Flex resin, contact your local sales representative.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

Limited Warranty Notice

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* MEYCO MP 364 Flex became MasterRoc MP 364 Flex under the Master Builders Solutions brand, effective October 1, 2013.

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