

MasterRoc[®] MF 90I

High performance plasticizing and water-reducing admixture for cementitious mine backfill

Description

MasterRoc MF 90I is a liquid, water-reducing admixture used to enhance backfill properties.

Applications

Recommended for use in:

- Cemented paste fill
- Cemented high density hydraulic fill
- Cemented rock fill
- Cemented aggregate fill

Features

- Reduces water content of backfill materials for given slump
- Improves slump and flow properties (rheological properties)
- Increases in-place strength at all ages
- Normal setting time and hardening rate
- Reduces pumping and distribution pressures
- Quick wetting effect, high efficiency mixing, and higher flow rates
- Can be added at a higher than recommended dosage to achieve extended time of setting

Benefits

- Mix optimization and/or cost savings by reduction of binders (cement, slag cement, fly ash)
- Enhances workability of the backfill materials, requiring less water
- Higher in-situ strengths of the backfill materials
- Potentially reduces the cycle time and increases production
- Reduces permeability and shrinkage in hardened backfill materials

Guidelines for Use

Dosage: The dosage range of MasterRoc MF 90I admixture may be affected by the total cementitious materials content of the mixture and by the particle size distribution of the backfill materials. The normal dosage range of MasterRoc MF 90I admixture is 6 – 18 fl oz/ton (200 - 600 mL/tonne) of total backfill. Dosage rates outside the recommended range may be used after conducting trial mixes.

Application Procedure: MasterRoc MF 90I admixture can be dispensed directly into the water or to the entire wetted-out mix. However, MasterRoc MF 90I admixture should not be dispensed directly onto the dry binder or with other admixtures.

Product Notes

Corrosivity: Non-Chloride, Non-Corrosive: MasterRoc MF 90I admixture does not contain intentionally added calcium chloride or chloride-based ingredients.

Compatibility: When used in conjunction with other admixtures, each admixture must be dispensed separately into the mix. The admixture is not typically chemically reactive with most backfill materials. Testing is recommended prior to use.

Do not use MasterRoc MF 90I admixture with admixtures containing beta-naphthalene-sulfonate. Erratic behaviors in slump, slump flow and pumpability may be experienced.

For directions on the proper evaluation of MasterRoc MF 90I admixture in specific backfill applications, contact your local sales representative.

Storage and Handling

Storage Temperature: MasterRoc MF 90I admixture should be stored at temperatures above 40 °F (5 °C), and be kept away from excessive heat and direct sunlight. If MasterRoc MF 90I admixture freezes, thaw at temperatures above 35 °F (2 °C), and reconstitute completely by mild agitation. Do not use pressurized air for agitation.

Shelf Life: MasterRoc MF 90I admixture has a minimum shelf life of 12 months when properly stored. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterRoc MF 90I admixture has been exceeded.

Packaging

MasterRoc MF 90I admixture is supplied in 238-gallon (900 L) IBC totes. Bulk delivery is available upon request.

Related Documents

Safety Data Sheet: MasterRoc MF 90I admixture

Additional Information

For additional information on MasterRoc MF 90I admixture, or its use in developing a backfill mixture with special performance characteristics, please contact your local sales representative.

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