

MasterPolyheed® N

Mid-Range Water-Reducing Admixture

Description

MasterPolyheed N admixture is a multi-component, chloride-bearing, mid-range water-reducing admixture. MasterPolyheed N admixture meets ASTM C 494/C 494M requirements for Type A, water-reducing admixtures.

Applications

Recommended for use in:

- All concrete applications where superior workability, pumpability and finishability qualities are desired, in particular, flatwork, pumped concrete and pervious concrete
- Concrete containing manufactured sand and harsh concrete mixtures

Features

- True mid-range (5-15%) water reduction and excellent performance across a wide slump range, especially the difficult slump range of 5-8 in. (125-200 mm)
- Reduced water content for a given slump
- Superior workability, pumpability and finishability qualities even in concrete mixtures containing low amounts of cementitious materials
- Normal concrete setting time throughout the recommended dosage range
- Improved performance with a wide range of cements, fly ashes, silica fume, slag cement, and aggregates (including coarse and manufactured sands)

Benefits

- Superior workability and pumpability in various concrete applications
- Superior finishing characteristics for residential/commercial flatwork and formed surfaces
- Significantly reduced placement and finishing time resulting in lower in-place concrete costs
- Increased strength at all ages

Performance Characteristics

Mixture Data: 500 lb/yd³ (295 kg/m³) of Type I cement; slump, 6.75 in. (170 mm); Non-air-entrained concrete; Concrete temperature 70 °F (21 °C); Ambient temperature, 70 °F (21 °C).

Setting Time Performance¹

Mixture	Initial Set (h:min)	Difference (h:min)
Plain	4:46	—
MasterPolyheed N admixture @		
5 fl oz/cwt (325 mL/100 kg)	4:34	-0:12
10 fl oz/cwt (650 mL/100 kg)	4:56	+0:10
15 fl oz/cwt (980 mL/100 kg)	5:28	

Compressive Strength, psi (MPa)

Mixture	7-Day	28-Day
Plain	3390 (23.4)	4230 (29.2)
MasterPolyheed N admixture @		
5 fl oz/cwt (325 mL/100 kg)	4110 (28.3)	4950 (34.1)
10 fl oz/cwt (650 mL/100 kg)	4290 (29.6)	5510 (38.0)
15 fl oz/cwt (980 mL/100 kg)	4770 (32.9)	5920 (40.8)

¹Note: The data shown are based on controlled laboratory tests. Reasonable variations from the results shown here may be experienced as a result of differences in concrete making materials and jobsite conditions.

Guidelines for Use

Dosage: MasterPolyheed N mid-range water-reducing admixture has a recommended dosage range of 3-15 fl oz/cwt (195-980 mL/100 kg) of cementitious material for most concrete mixtures.

As the dosage of MasterPolyheed N admixture increases to 15 fl oz/cwt (980 mL/100 kg) of cementitious materials, normal concrete setting time characteristics are maintained and early and ultimate compressive strengths increase.

BASF does not recommend the use of dosages outside the recommended range without trial testing. Consult your local sales representative for assistance in determining the dosage for optimum performance.

Product Notes

Corrosivity: MasterPolyheed N admixture contains intentionally-added calcium chloride. The chloride ion content of this admixture, due to chlorides originating from all the ingredients used in its manufacture, is less than 0.0057% by weight of cement when used at a dosage of 1 fl oz/cwt (65 mL/100 kg) of cement. The ACI 318 (ACI 318M) building code requirements for concrete contains limits for water-soluble chloride ions in concrete for specific applications. BASF recommends strict adherence to chloride limits in project specifications. Please contact your local sales representative for other product recommendations if a project specification prohibits the use of chloride-bearing admixtures.

Compatibility: MasterPolyheed N admixture is compatible with most admixtures and can be used in combination with other BASF admixtures, unless stated otherwise. When used in conjunction with other admixtures, each admixture must be dispensed separately into the concrete mixture.

Storage and Handling

Storage Temperature: If MasterPolyheed N admixture freezes, thaw at 35 °F (2 °C) or above and completely reconstitute by mild mechanical agitation. **Do not use pressurized air for agitation.**

Shelf Life: MasterPolyheed N admixture has a minimum shelf life of 18 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterPolyheed N admixture has been exceeded.

Packaging

MasterPolyheed N admixture is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterPolyheed N admixture

Additional Information

For additional information on MasterPolyheed N admixture or its use in developing concrete mixtures with special performance characteristics, 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

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of BASF. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.