

MasterPolyheed® 997

Mid-Range Water-Reducing Admixture

Formerly PolyHeed 997*

Description

MasterPolyheed 997 admixture is a patented multi-component, mid-range water-reducing admixture. MasterPolyheed 997 admixture meets ASTM C 494/C 494M requirements for Type A, water-reducing, and Type F, high-range 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 water reduction (5-15%) and excellent performance across a wide slump range, especially the difficult slump range of 5-8 in. (125-200 mm)
- Superior workability, pumpability and finishability qualities even in concrete mixtures containing low amounts of cementitious materials
- Superior finishing characteristics for residential/commercial flatwork and formed surfaces

Benefits

- Significantly reduced placement and finishing time resulting in lower in-place concrete costs
- Higher strength at all ages
- Enhanced concrete durability
- Increased service life of concrete structures

Performance Characteristics

Mixture Data: 500 lb/yd³ (295 kg/m³) of Type I cement; slump 6-7 in. (150-180 mm); 5-6% air; concrete temperature 70 °F (21 °C); ambient temperature, 70 °F (21 °C).

Setting Time Performance¹

Mixture	Initial Set (h:min)	Difference (h:min)
Reference	6:01	—
MasterPolyheed 997 admixture @		
5 fl oz/cwt (325 mL/100 kg)	6:22	+0:21
10 fl oz/cwt (650 mL/100 kg)	6:57	+0:56
15 fl oz/cwt (980 mL/100 kg)	7:31	+1:30

Compressive Strength, psi (MPa)

Mixture	7-Day	28-Day
Plain	2360 (16.3)	3320 (22.9)
MasterPolyheed 997 admixture @		
5 fl oz/cwt (325 mL/100 kg)	3060 (21.1)	3930 (27.1)
10 fl oz/cwt (650 mL/100 kg)	3740 (25.8)	4610 (31.8)
15 fl oz/cwt (980 mL/100 kg)	4620 (31.9)	5460 (37.7)

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 997 admixture has a recommended dosage range of 3-15 fl oz /cwt (195-980 mL/100 kg) of cementitious material for most concrete mixes.

As the dosage of MasterPolyheed 997 admixture increases to 15 fl oz/cwt (980 mL/100 kg) of cementitious materials, normal concrete setting 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 – Non-Chloride, Non-Corrosive: MasterPolyheed 997 admixture will neither initiate nor promote corrosion of reinforcing or prestressing steel embedded in concrete, or of galvanized steel floor and roof systems. MasterPolyheed 997 admixture does not contain intentionally added calcium chloride or other chloride-based ingredients.

Compatibility: MasterPolyheed 997 admixture may be used in combination with any BASF admixtures. When used in conjunction with other admixtures, each admixture must be dispensed separately into the concrete mixture.

Storage and Handling

Storage Temperature: If MasterPolyheed 997 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 997 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 997 admixture has been exceeded.

Packaging

MasterPolyheed 997 admixture is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterPolyheed 997 admixture

Additional Information

For additional information on MasterPolyheed 997 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.

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* Polyheed 997 became MasterPolyheed 997 under the Master Builders Solutions brand, effective January 1, 2014.

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BASF Corporation
Admixture Systems
www.master-builders-solutions.basf.us

United States
23700 Chagrin Boulevard
Cleveland, Ohio 44122-5544
Tel: 800 628-9990 ■ Fax: 216 839-8821

Canada
1800 Clark Boulevard
Brampton, Ontario L6T 4M7
Tel: 800 387-5862 ■ Fax: 905 792-0651

