

03 30 00	Cast-in-Place Concrete
03 40 00	Precast Concrete
03 70 00	Mass Concrete

MasterPolyheed[®] 980

Mid-Range Water-Reducing Admixture

Description

MasterPolyheed 980 ready-to-use water-reducing admixture is very effective in producing concrete with enhanced finishing characteristics and with different levels of workability. MasterPolyheed 980 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 finishability, workability, and pumpability qualities are desired, in particular, flatwork, pumped concrete, pervious concrete, 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 to 8 in. (125 to 200 mm)
- Superior finishability, workability, and pumpability 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: 517 lb/yd³ (307 kg/m³) of Type I cement; slump 6 to 7 in. (150 to 180 mm); 2 to 3% air; concrete temperature 70 °F (21 °C); ambient temperature 70 °F (21 °C).

Setting Time

Mixture	Initial Set (h:min)	Difference over Reference (h:min)
Reference	4:02	-
MasterPolyheed 980 admixture @		
5 fl oz/cwt (325 mL/100 kg)	4:38	+0:36
10 fl oz/cwt (650 mL/100 kg)	5:28	+1:26

Compressive Strength, psi (MPa)

Mixture	7-Day	28-Day
Reference	4650 (32.1)	5610 (38.7)
MasterPolyheed 980 admixture @		
5 fl oz/cwt (325 mL/100 kg)	5330 (36.7)	6060 (41.8)
10 fl oz/cwt (650 mL/100 kg)	6280 (43.3)	7400 (51.0)

Note: The data shown are based upon 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 980 admixture has a recommended dosage range of 2 to 12 fl oz/cwt (130 to 780 mL/100 kg) of cementitious materials for most concrete mixtures. As the dosage of MasterPolyheed 980 admixture increases to 12 fl oz/cwt (780 mL/100 kg) of cementitious materials, normal concrete setting characteristics are maintained, and early and ultimate compressive strengths increase. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. Consult your local sales representative for assistance in determining the dosage for optimum performance.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterPolyheed 980 admixture will neither initiate nor promote corrosion of reinforcing or prestressing steel embedded in concrete, or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of MasterPolyheed 980 admixture.

Compatibility: MasterPolyheed 980 admixture is compatible with most admixtures used in the production of quality concrete, including normal, mid- and high-range water reducers, accelerators, retarders, extended-set control admixtures, air entrainers, corrosion inhibitors, and shrinkage reducers. **Do not use MasterPolyheed 980 admixture with admixtures containing beta-naphthalene sulfonate. Erratic behaviors in slump, workability retention and pumpability may be experienced.**

Storage and Handling

Storage Temperature: MasterPolyheed 980 admixture should be stored between 35 and 105 °F (2 and 41 °C). If MasterPolyheed 980 admixture freezes, thaw at 40 °F (5 °C) or above and completely reconstitute using mild mechanical agitation. **Do not use pressurized air for agitation.**

Shelf Life: MasterPolyheed 980 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 980 admixture has been exceeded.

Packaging

MasterPolyheed 980 admixture is supplied in 3 gal (11 L) pails, 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterPolyheed 980 admixture

Additional Information

For additional information on MasterPolyheed 980 admixture or its use in developing concrete mixtures with special performance characteristics, 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.

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