

# MasterPolyheed<sup>®</sup> 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/yd<sup>3</sup> (295 kg/m<sup>3</sup>) 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 Performance<sup>1</sup>

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)

<sup>1</sup>Note: 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.

Master Builders Solutions 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. Master Builders Solutions 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 Master Builders Solutions 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.

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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.*

## Limited Warranty Notice

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