

MasterSet[®] AC 534

Accelerating Admixture

Description

MasterSet AC 534 patented, ready-to-use, liquid admixture is formulated to accelerate time of setting and to increase early concrete strengths. MasterSet AC 534 admixture does not contain calcium chloride and is formulated to comply with ASTM C 494/C 494M Type C, accelerating, admixture requirements.

Applications

Recommended for use in:

- Reinforced, precast, pumped, lowable, lightweight or normal weight concrete and shotcrete (wetmix)
- Concrete placed on galvanized steel floor and roof systems which are left in place
- Prestressed concrete
- Fast-track concrete construction
- Concrete subject to chloride ion constraints
- 4x4[™] Concrete
- Self-consolidating concrete (SCC)
- Pervious concrete

Features

- Accelerated setting time across a wide range of temperatures
- Increased early compressive and flexural strengths

Benefits

- Earlier finishing of slabs — reduced labor costs
- Reduced in-place concrete costs
- Reduced or eliminated heating and protection time in cold weather
- Earlier stripping and reuse of forms
- Superior finishing characteristics for latwork and cast surfaces

Performance Characteristics

Mixture Data: 453 lb/yc³ (269 kg/m³) of Type I cement; 3-4 in. (75-100 mm) slump; concrete temperature 74 °F (23 °C); ambient temperature 50 and 75 °F (10 and 24 °C); non-air-entrained concrete.

Setting time @ 50°F (10°C)

	Initial Set (h:min)	Difference (h:min)
Plain	13:44	REF
MasterSet AC 534 admixture @		
› 20 l oz/cwt (1,300 mL/100 kg)	7:11	-6:33
› 40 l oz/cwt (2,600 mL/100 kg)	6:05	-7:39

Setting time @ 75°F (24°C)

	Initial Set (h:min)	Difference (h:min)
Plain	8:18	REF
MasterSet AC 534 admixture @		
› 20 l oz/cwt (1,300 mL/100 kg)	4:59	-3:19
› 40 l oz/cwt (2,600 mL/100 kg)	4:18	-4:00

Guidelines for Use

Dosage: The recommended dosage range for MasterSet AC 534 admixture is 10-45 l oz/cwt (0.65 – 2.9 L/100 kg) of cementitious materials for most concrete mixtures using average concrete ingredients. Because of variations in job conditions and concrete materials, dosage rates other than the recommended amounts may be required. In such cases, contact your local sales representative.

The maximum dosage of MasterSet AC 534 in potable water applications that require the use of NSF Certified products is 30 l oz/cwt (2.0 L/kg) of cementitious materials. For specialty concrete mixtures such as 4x4 Concrete, dosages up to 100 l oz/cwt (6.5 L/100 kg) may be required.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterSet AC 534 admixture will neither initiate nor promote corrosion of reinforcing steel in concrete.

Compatibility: MasterSet AC 534 admixture may be used in combination with any Master Builders Solutions admixtures. When used in conjunction with other admixtures, each admixture must be dispensed separately into the mixture.

Storage and Handling

Storage Temperature: MasterSet AC 534 admixture should be stored above freezing temperatures. If MasterSet AC 534 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: MasterSet AC 534 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 MasterSet AC 534 admixture has been exceeded.

Packaging

This product is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterSet AC 534 admixture

Additional Information

For additional information on MasterSetAC534 admixture or its use in developing a concrete mixture with special performance characteristics contact your local sales representative.

The Admixture Systems business of Master Builders Solutions 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.

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