

Mapefast Super Set

Accelerating Admixture

FOR PROFESSIONAL USE ONLY

DESCRIPTION

Mapefast Super Set (formerly known as Polychem Super Set) is a non-chloride, water-reducing admixture formulated to accelerate the strength development and setting time of concrete in cold weather. *Mapefast Super Set* can reduce labor costs associated with the finishing process. *Mapefast Super Set* is non-corrosive and, therefore, will not aid in the corrosion of reinforcing steel embedded within the concrete. It is recommended for use in all types of concrete, especially reinforced and prestressed.

WHERE TO USE

Mapefast Super Set is recommended for use in all types of concrete, especially reinforced and prestressed. In plastic concrete, *Mapefast Super Set*:

- Accelerates the setting times.
- Increases the workability.
- Ensures superior and earlier finishing of slabs (flatwork) and can reduce labor costs associated with the finishing process.
- Reduces cure heating costs and protection time in cold weather.
- Reduces segregation and bleeding.

In hardened concrete, *Mapefast Super Set*:

- Increases the early-age strengths.
- Ensures superior finished appearance.
- Ensures early stripping and reuse of formworks.
- Increases the resistance to freeze/thaw conditions.

APPLICATION PROCEDURE

Mapefast Super Set can be added at the concrete plant or on the jobsite. When it is used with other admixtures, dispense each admixture separately into the mix. If *Mapefast Super Set* is added after the initial mixing sequence, charge the concrete for 1 minute per cubic yard, for a minimum of 5 minutes, to ensure proper mixing.

COMPATIBILITY WITH OTHER PRODUCTS

Mapefast Super Set is compatible with most products for preparing quality concrete. It is especially compatible with mid- or high-range water reducers from the MAPEI line and:

- Standard air-entraining admixtures.
- Viscosity-modifying admixtures.
- Approved MAPEI form-release agents for releasing concrete from formworks.
- Expansive agents and shrinkage-compensating admixtures to produce shrinkage-resistant concrete.
- Curing compounds from the *Mapecure*™ product family to protect against rapid water evaporation.
- Silica-fume-based powder additions.
- Class C and Class F fly ash.
- GGBFS.
- Various types of limestone fillers for manufacturing self-consolidating concrete and any other type of concrete that requires these fillers.
- All types of Portland cements.

MAPEI's Technical Services Department is available to evaluate which admixture or admixture packages are most suitable for any specific need. Contact MAPEI's Technical Services Department for further advice.

DOSAGE RATES

Mapefast Super Set's normal recommended dosage rates are 6 to 32 U.S. oz. per 100 lbs. (390 to 2 080 mL per 100 kg) of cementitious material, dependent upon acceleration needed or required and the ambient temperature as well as concrete temperatures involved.

Typical compressive strengths:

517 lbs. cement per cu. yard (307 kg per m³) – 4" (10 cm) slump. *Mapefast Super Set*: 16 U.S. oz. per 100 lbs. cement (1 040 mL per 100 kg).

	Control batch	<i>Mapefast Super Set</i>
3 days	2,690 psi (19 MPa)	3,550 psi (24 MPa)
7 days	4,310 psi (30 MPa)	4,810 psi (33 MPa)
28 days	5,250 psi (36 MPa)	5,580 psi (38 MPa)

Typical setting times:

517 lbs. cement per cu. yard (307 kg per m³) – 4" (10 cm) slump. Concrete at 60°F (16°C), ambient at 40°F (4°C). Initial set measurements per ASTM C403.

Control batch	16 U.S. oz. per 100 lbs. (1 040 mL per 100 kg)	32 U.S. oz. per 100 lbs. (2 080 mL per 100 kg)
7 hours, 30 minutes	5 hours, 10 minutes	3 hours, 55 minutes

Dosage rates outside of the suggested range should be tested before using in production. Contact MAPEI's Technical Services Department for assistance.

PACKAGING

Mapefast Super Set is available by bulk delivery, in 55-U.S.-gal. (208-L) drums and 275-U.S.-gal. (1 040-L) totes.

STORAGE

Mapefast Super Set should be protected against freezing. In the event that freezing does occur, thaw and mildly agitate the product to restore original consistency. Air pressure is not recommended.

Technical Data

Consistency	Liquid
Color	Pink
Density	11.93 lbs. per U.S. gal. (1.43 kg per L)
Primary function	Acceleration of setting and hardening time; water reduction
Classification according to ASTM C494	Type C and Type E
Corrosivity	Non-corrosive. <i>Mapefast Super Set</i> does not contain calcium chloride or other chloride-based components. Its use will not contribute to the increased corrosion of reinforcing steel in concrete.

ADDITIONAL INFORMATION

Refer to the SDS for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

CONTACT INFORMATION

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Edition Date: May 17, 2023 MK 3000461 (23-1919)

For the most current product data and BEST-BACKEDSM warranty information,
visit www.mapei.com.
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