

MAPETARD R

Set retarding admixture



PRODUCT DESCRIPTION

Mapetard R is a set retarding admixture based on sodium gluconate, used to control the setting of concrete. **Mapetard R** is normally used in combination with other admixtures, e.g. **Dynamon** or **Mapeplast**. **Mapetard R** is used for concrete subjected to longer transportation times, for complicated casting procedures, or where a cast without joints is desirable despite interruptions in the casting work.

TECHNICAL PROPERTIES

Addition of **Mapetard R** to concrete or mortar will delay the setting time. The delay in time is dependent upon several factors; the amount of admixture used (as part of the quantity of cement), type of cement, quality of the concrete, temperature of the construction, presence of other admixtures (e.g. silica). It is therefore recommended to undertake test casting using actual materials, especially for larger pours where accuracy of setting time is crucial.

Mapetard R also has a dispersing effect on the cement and is slightly water reducing. These properties give improved workability and better quality of casting (improved slump) for the same amount of water.

DOSAGE

Normal dosage of **Mapetard R** is from 0.2 to 1.0 % of cement by weight. When adding manually dilution of **Mapetard R** with water (e.g. 1:1) is recommended for a more accurate dosage.

RECOMMENDATIONS

Mapetard R is added together with the mixing water directly into the mixer. **Mapetard R** should not be added any later as this can give extra long and variable setting times. In addition special care must be taken with regard to heat transferred from underlying or adjacent concrete. This can be compensated for by the addition of an increased amount of **Mapetard R**, or by gradually increasing the amount of admixture throughout the casting.

PACKAGING

Mapetard R is available in 25 liter cans, 200 liter drums, 1000 liter IBC containers and in tank.

STORAGE

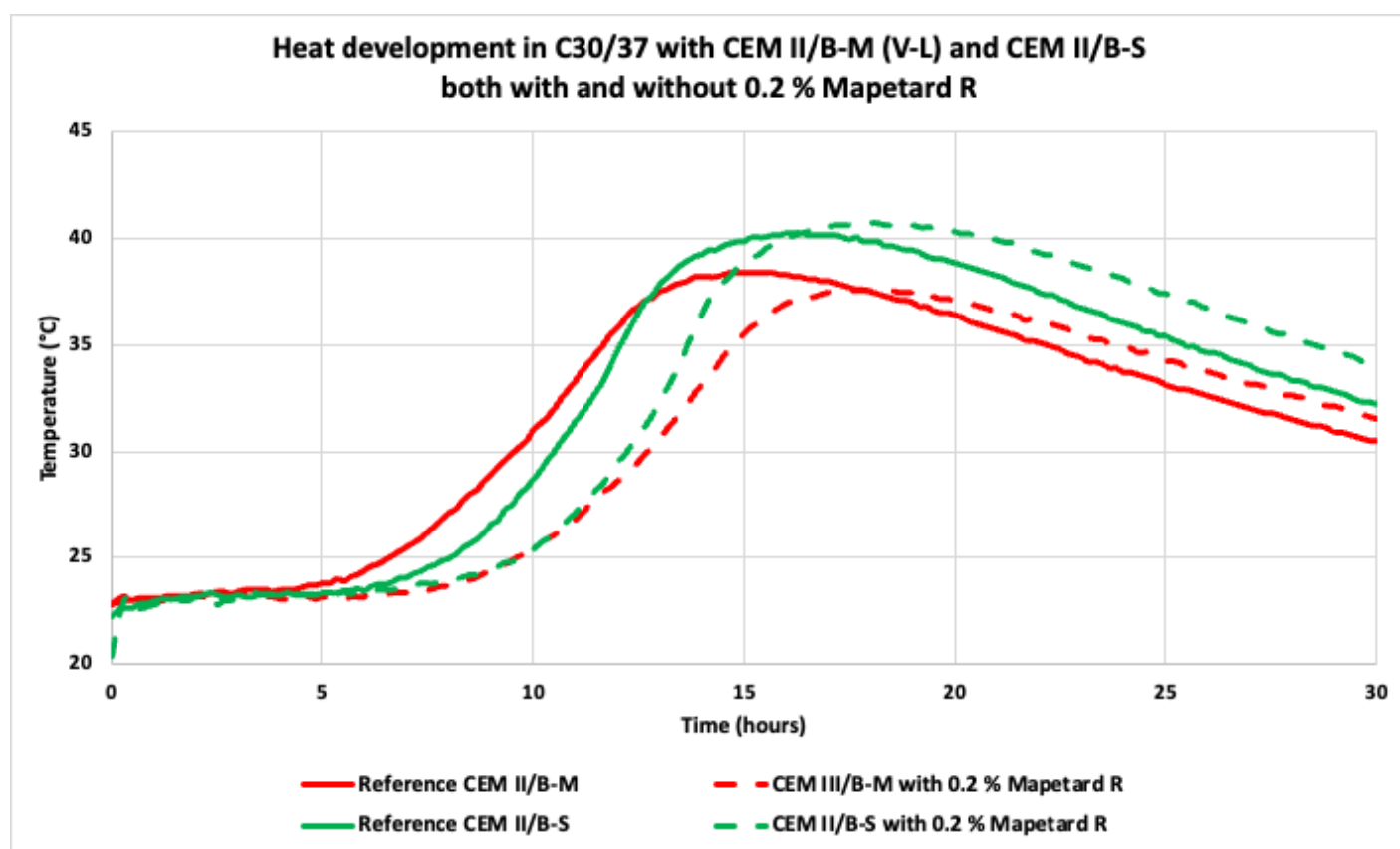
The product must be stored at temperatures between +8°C and +35°C, and will retain its properties for at least one year if stored unopened in its original packaging. If the product is exposed to direct sunlight, colour variation may occur, but this will not affect the technical properties of the product.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website www.mapei.no

PRODUCT FOR PROFESSIONAL USE.

Retardation of concrete with dosage of Mapetard R - at W/C = 0.55 and temperature +20°C. Test is conducted with two types of cement: CEM II/B-M 42.5 R and CEM II/B-S 52.5 N.



The graph shows the effect of 0.2 % **Mapetard R** in concrete (C30/37), with both CEM II/B-M (Standard FA) and CEM II/B-S (Miljøsement) from Heidelberg Materials AS and Schwenk Norge AS. Concrete is with 350 kg cement/m³ and has water/cement-ratio of 0.55.

For concrete with CEM III/B-M is the dosage of admixtures was as flows: Reference: 0.7 % **Dynamon SX-23** and retarded concrete: 0.6 % **Dynamon SX-23** + 0.2 % **Mapetard R**. This resulted in slump of 230 and 220 mm. For concrete with CEM II/B-S the dosage of admixtures was as follows: Reference: 0.8 % **Dynamon SX-23** and retarded concrete: 0.75 % **Dynamon SX-23** + 0.2 % **Mapetard R**. This resulted in slump of 220 and 210 mm.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Appearance:	liquid
Colour:	blue
Viscosity:	easy flowing; < 10 mPa·S
Solids content:	20.0 ± 1.0 %
Density:	1.10 ± 0.02 g/cm ³
pH:	7.0 ± 1
Chloride content:	< 0.05 %
Alkali content (equiv. Na ₂ O):	< 3.5 %

CONCRETE PROPERTIES

	Reference	Added Mapetard R
Standard cement, CEM I-42,5 R (Norcem standard):	350 kg/m ³	350 kg/m ³
Admixture dosage (% by weight of cement):	0	0.4
Water to cement ratio:	0.52	0.50
Water reduction:	-	5 %
Consistency, slump value:	75 mm	80 mm
Air volume:	2.5 %	2.6 %
Time to setting:	5 h. 00 min.	8 h. 45 min.
Compressive strength:		
- after 24 hours	19 N/mm ²	20 N/mm ²
- after 7 days	36 N/mm ²	41 N/mm ²
- after 28 days	44 N/mm ²	52 N/mm ²

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above - information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application: for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application: in every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the technical data sheet, available from our web site www.mapei.no

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 or 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.no

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.

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