

# PANTARHIT® FM 239

**Superplasticizer for concrete**

Item No 8220/E

## FIELDS OF APPLICATION

PANTARHIT® FM 239 is a superplasticizer for producing high quality concrete and suitable for applying in both precast and ready-mix plants.

The sulphonated superplasticizer enhances concrete's workability, advances its slump retention, and improves its trowellability. PANTARHIT® FM 239 allows reducing the incidence of cold joints.

PANTARHIT® FM 239 is applied to enhance concrete's consistency by several consistency classes or in order to reduce the quantity of tempering water.

## DOSAGE

The general dosage range is 0.2 – 3.5 mass-% of the cement content.

## STANDARD COMPLIANCE

PANTARHIT® FM 239 conforms to ASTM C494 Type F/G and BS EN 934-2.

## WORKING PRINCIPLE

PANTARHIT® FM 239 reduces the surface tension of water and ensures a strong plasticizing effect thereby. This leads on to a significant improvement in concrete's workability, pumping, levelling, and compaction.

PANTARHIT® FM 239 does not entrain any air voids into the concrete but even reduces them. The setting of concrete is not impaired.

## TECHNICAL DATA

Homogeneity	homogenous
Colour	dark brown
Chemical base	sodium naphthalene
State	liquid
Density	1.22 ± 0.03 g/cm <sup>3</sup>
pH-value	7.0 ± 1.0
Chloride content	chloride free acc. to EN 934-2
Alkali content (Na <sub>2</sub> O equivalent)	< 8.5 mass-%
Workability	from +1 °C
Shelf life	approx. 1 year from date of production if stored properly
Storage conditions	Store under cover, out of direct sunlight and protect from extremes of temperature.

## PROCESSING INDICATIONS

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PANTARHIT® FM 239 should be added to the ready-mixed concrete.

For the recommended mixing time the definitions and regulations of EN 206-1 apply.

## COMPATIBILITY

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PANTARHIT® FM 239 is suitable for concrete designs containing OPC or SRC cement, micro-silica or silica fume, fly ash (PFA) and ground granulated blast furnace slag (GGBS).

PANTARHIT® FM 239 should not be used in conjunction with any PCE based admixture.

When using other Ha-Be admixtures in the same concrete mixture, the products should be added separately and must not be blended prior to addition! Using more than one admixture requires suitability and preliminary tests in order to ensure the required combination of its effects is attained.

## PACKAGING

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- 30 l can
- 200 l barrel
- 1000 l container

## HEALTH & SAFETY

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This product is not classified as hazardous according to the current regulations. Refer to the corresponding Material Safety Data Sheet for further advice.

## REMARKS

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This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indications are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

The management system of Ha-Be Egypt is certified to ISO 9001:2015.



Edition: 09 August 2022

**SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE CONCRETE ADMIXTURE!**