

DYNAMON NRG 1030 AT

Superplasticiser for the production of precast elements



DESCRIPTION

Dynamon NRG 1030 AT is an extraordinarily efficient superplasticiser developed for high-quality precast concrete elements.

WHERE TO USE

Due to its physical and mechanical properties, **Dynamon NRG 1030 AT** optimizes the performance characteristics of concrete during casting. In particular, it improves its firmness and setting properties during the curing time. **Dynamon NRG 1030 AT** has been specifically developed for concrete with high early strength. It is compatible with the manufacturing process used in precast factories and guarantees a fast developing early strength in order to minimize production time. Its characteristics make it particularly suitable for the production of both conventional and self-compacting concrete. In order to fulfill the respective requirements and allow its user to produce concrete in higher categories of consistency, **Dynamon NRG 1030 AT** comprises a stabilizing component. In case the desired stability cannot be achieved, the product may be combined with Viscofluid SCC/10 or Viscostar 3K. **Dynamon NRG 1030 AT** is particularly suitable for the production of precast concrete elements and the following application fields:

- Prestressed concrete parts;
- Wall fillings;
- Precast segments and blocks;
- Ceiling panels.

TECHNICAL CHARACTERISTICS

Dynamon NRG 1030 AT is a superplasticiser based on new generation modified PCEs in aqueous solution. The specific molecular structure of the polymers contained in this product, effectively disperses the cement particles, thus achieving a highly plastic mixture. **Dynamon NRG 1030 AT** allows the concrete mixture to keep its consistency without influencing the cement's hydration process. The mechanical strength of concrete produced proficient with **Dynamon NRG 1030 AT** is very high at the beginning of the curing process. The product also allows to control the total quantity of air in the concrete. A small quantity thereof reduces permeability, improves durability and the surface finish of exposed concrete.

APPLICATION INSTRUCTIONS

The product is ready-to-use. **Dynamon NRG 1030 AT** shows its greatest dispersing effect if added after the other components (cement, admixtures, sand, etc), or, after a part of the mixing water. After the addition of **Dynamon NRG 1030 AT**, it is recommended to extend the mixing time for at least two minutes, in order to ensure a sufficient distribution of all components.

COMPATIBILITY WITH OTHER PRODUCTS

Dynamon NRG 1030 AT is compatible with other admixtures used in the production of concrete. These include:

- Chloride-free setting accelerators from the Mapefast range line (used to achieve a very high early strength);
- Viscostar and Viscofluid range lines (additives for the modification of the viscosity of self-compacting concrete);
- Mapeplast SF (a powder admixture based on microsilica for the production of highquality concrete with excellent mechanical strengths, impermeability and durability);

- Expancrete (expansive admixture for the production of shrinkagecompensating concrete);
- Fly ash (for the production of pumping concrete and self-compacting concrete);
- Calcareous and other filling materials (for the production of self-compacting concrete);
- Releasing agent from the Mapeform Eco, DMA or Solvent range;
- Curing agents from the Mapecure range for the protection against the premature evaporation of the mixing water in concrete surfaces.

For the production of concrete that is resistant to frost and salt, please contact our application-engineering team, which will gladly help you in finding the most suitable product of the Mapeair LP range.

DOSAGE

Volumetric dosage:

0.5 – 1.5 l per 100 kg cement for conventional concrete

Due to the differences in the recommended amount, it is necessary to carry out initial tests with the concrete. In case of doubt, please consult our technical service.

PACKAGING

25 kg, 220 kg, 1000 kg IBC and as bulk

STORAGE

Storage life: 1 year

Storage conditions: store in sealed packages only. Protect from frost and sunlight, since the latter may cause changes in colour of the product (however, this does not have affect on the product's quality).

SAFETY INSTRUCTIONS

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet available on www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	yellow
Density (g/cm ³):	1.03 – 1.07
Main action:	enhancement of workability and/or water reduction and acceleration of early strength
Classification according to ASTM C 494:	types C and F
Classification according to EN 934-2:	water reducing super-plasticiser with high effectiveness, setting accelerator, tables 3.1, 3.2
pH value:	4.0 – 6.0
Chloride content (%):	≤ 0.1
Alkali content (%):	≤ 4.0
Marking according to – GISCODE:	BZM20 – Concrete admixture, unlabeled, with hazard warning. For further information refer to the Material Safety Data Sheet.

DISPOSAL OF WASTE

Completely emptied containers or product residues must be disposed according to the valid local guidelines.

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 website www.mapei.com.

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