



# New Guard Coatings Group

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This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

[www.newguardcoatings.com](http://www.newguardcoatings.com)

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# Mapefibre NS12

## Polypropylene microfibres for concrete



### DESCRIPTION OF THE PRODUCT

**Mapefibre NS12** are 12 mm-long mono-filament, polypropylene microfibres. When added to concrete, **Mapefibre NS12** improve the resistance of concrete to cracks caused by plastic shrinkage. The special “mono-filament” formation makes the dispersion and distribution within the concrete mix easier.

### WHERE TO USE

**Mapefibre NS12** are recommended to improve the resistance of concrete to cracks caused by plastic shrinkage as well as the fire resistance properties and the durability of concrete. Moreover, the homogeneity of concrete during the pouring phase is enhanced:

- production of concrete used for industrial floors, airport forecourts and multi-storey car-parks;
- production of precast reinforced concrete panels and pipes and concrete elements;
- production of fire-resistant concrete.

### RECOMMENDATIONS

The use of **Mapefibre NS12** does not offer any advantage from a structural point of view, and may not be considered as an alternative solution to metal reinforcement.

It is also necessary to ensure that the design of the concrete mix is correct to prevent cracking phenomenon, and that curing of the concrete is carried

out accordingly to avoid sudden evaporation of the water from the surface of the cast concrete.

### COMPATIBILITY WITH OTHER PRODUCTS

**Mapefibre NS12** are compatible with other admixtures used in the production of high-quality concrete, and especially with:

- acrylic-based super-plasticising agents from the **Dynamon** range, for an improved mix design, consistency and maintenance of workability;
- **Mapecure** range curing surface films, for correct curing of the concrete;
- **Mapecrete System**, innovative technology used in the production of concrete with volumetric stability;
- **Mapeform Eco** and **DMA** stripping compounds, used for stripping concrete from moulds.

### HOW TO USE

Add **Mapefibre NS12** in the cement mixer together with all the other ingredients (cement, aggregates, water and admixtures). Mix until a homogenous blend is obtained.

### CONSUMPTION

The normal dosage of **Mapefibre NS12** is 600 g/m<sup>3</sup>, usually added to the concrete. Higher dosage can be used for special applications such as shotcrete or fire resistance.

# Mapefibre NS12



## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

Length of fibres (mm):	12
Diameter (µm):	32 ± 1.6
Density (g/cm <sup>3</sup> ):	0.91
Flame point:	+400°C
Melting point:	+160°C-170°C
Water absorption:	none
Resistance to alkalis, acids and salts:	high
Tensile strength (N/mm <sup>2</sup> ):	400-500

### PACKAGING

Mapefibre NS12 are supplied in boxes with 30 degradable/pulpable paper bags, 600 grams each.

### STORAGE

Mapefibre NS12 may be stored for 36 months in their sealed bags. Protect from direct sunlight and rain.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapefibre NS12 is an article and referring to the current European regulations (Reg. 1906/2007/CE - REACH) does not require the preparation of the Safety Data sheet. Where applying the product, it is recommended to wear gloves and goggles and follow the safety requirements of the workplace.

PRODUCT FOR PROFESSIONAL USE.

### 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](http://www.mapei.com)**

### 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 force at the time of the MAPEI product installation.*

*The most up-to-date TDS can be downloaded from our website [www.mapei.com](http://www.mapei.com).*

**ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.**

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**



Pouring concrete with the addition of Mapefibre NS12 to counter plastic shrinkage



Example of industrial flooring admixed with Mapefibre NS12



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