



RDM.0206

READYMESH PS

Monofilament macro-fibre for structural spritz-beton and prefabrication

Customs Code

5404 1200

Packaging

- Hydro degradable bag 4 kg
- PS-380 Box: 4 x (Hydro degradable bag 4 kg)
- PS-480 Box: 4 x (Hydro degradable bag 4 kg)

Application

- To be added to other components
- Shotcrete machine

Family
Readymesh

Product Lines

- Infratech
- Floor

Components
Single-component

Type
Synthetic polypropylene fibres

Functional Categories

- **Improvement of mechanical and/or rheological performance of newly manufactured mortars, plasters and concretes**
- **Structural maintenance of tunnels**
- **Construction of spritz-beton**
- **Prefabrication**

Appearance
Fibers

Certifications and legislations



EN 14889-2:2006 (System 1)

Structural fibres for concrete. Polymer fibres. Definitions, specifications and conformity.

General description

Structural polyolefin macro-fibre, high performance, for improved adherence specific for structural applications, even as a substitute for conventional steel reinforcements. READYMESH PS increases the absorption of energy of the product in case of breakage and yielding, it gives the concrete a greater resistance to the forces of traction/bending, it reduces the risk of breakage of the concrete component in the corners and edges. It also reduces the phenomenon of segregation of the concrete during the installation and it reduces the risk of corrosion of the reinforcing rods (if present) due to the reduction in cracking from plastic shrinkage. READYMESH PS are available in two different lengths: READYMESH PS-380 = 38 mm; READYMESH PS-480 = 48 mm

Dosage

Variable according to the type of work to be carried out (screeds, floors, spritz beton), on average from 1 to 6 kg per cubic metre of cement conglomerate.

Fields of application

It can be used where widespread structural and three-dimensional reinforcement of the conglomerate is required. It is particularly indicated in structural applications and in severe operating conditions (after static-structural calculation). The main applications, to name a few, are projected concretes (spritz-beton, shotcrete, shotcrete), mass concrete, base slabs and underpinning, structural slabs, medium and large prefabrication, etc.

Basic features



Density:
0.91 g/cm³



Diameter:
0.69 mm



Nonflammable



Unlimited shelf-life



UV-resistant



Available colours
Transparent



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Technical specifications

Auto-ignition temperature: >400 °C

Flash-point (ASTM D 1929): 350 °C

Number of filaments: 62.500 nr/kg

Odorless

Resistant to freezing/thawing cycles in the presence of salts/chlorides

Softening point: 160 - 170 °C

Applicable on

Concrete, Prefabricated concrete, Floor screed

Instructions for use

In the case of prefabrication or concrete mixing plants with pre-mixer, READYMESH PS can be added directly into the mixer drum or alternatively on the conveyor belt of the aggregates. Add the product, at the desired dosage, only after you have loaded the aggregates in the mixer.

It is also possible to add it directly to the fibres in the mixer truck drum, after the same has been loaded with the other components of the concrete. Mix, with the drum of the mixer truck at full speed, for at least one minute for each m³ of concrete.

The dosage, depending on use, is normally included between 1 to 6 kg/m³ The recommended dosage for most structural applications is 3 kg/m³.

For information only (to be verified by preliminary tests):

> industrial concrete floors: 2.5 - 5 kg / m³;

> screeds in wet earth: 1 - 3 kg / m³;

> prefabricated elements: 3 - 6 kg / m³.

The replacement of the traditional steel reinforcement by the addition of the certified structural fibres READYMESH PS can occur only with the approval of the structural engineer in charge.

Do not introduce the fibres in truck mixer until you have loaded at least 40% of the aggregates!

Storage and preservation

Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Protect from humidity.



Technical characteristics of Azichem Srl READYMESH PS polypropylene fibers:

Fiber model	READYMESH PS-380	READYMESH PS-480
Fiber length	38 mm	48 mm
Effect on the consistency of the concrete (Vebè) 5 kg/m ³	-	V3
Young's modulus	9.000 MPa	10.357 MPa
Tensile strength	-	502 MPa
Fracture energy	-	970 J
Number of filaments for each kg	75.000	58.000

Plate test READYMESH PS-480

Legislation reference	EN 1488-5	ASTM C 1550-03
Dosage of fibres	6.0 kg/m ³	6.0 kg/m ³
F max	63.12 kN	31.73 kN
Energy of fracture	970 J	422 J



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Warnings, Precautions and Ecology

The general information, along with any instructions and recommendations for use of this product, including in this data sheet and eventually provided verbally or in writing, correspond to the present state of our scientific and practical knowledge.

Any technical and performance data reported is the result of laboratory tests conducted in a controlled environment and thus may be subject to modification in relation to the actual conditions of implementation.

Azichem Srl does not assume any liability arising from inadequate characteristics related to improper use of the product or connected to defects arising from factors or elements unrelated to the quality of the product, including improper storage.

Those wishing to utilise the product are required to determine prior to use whether or not the same is suitable for the intended use, assuming all consequent responsibility.

The technical and characteristic details contained in this data sheet shall be updated periodically. For consultation in real time, please visit the website: www.azichem.com. The date of revision is indicated in the space to the side. The current edition cancels out and replaces any previous version.

Please note that the user is required to read the latest Safety Data Sheet for this product, containing chemical-physical and toxicological data, risk phrases and other information regarding the safe transport, use and disposal of the product and its packaging. For consultation, please visit: www.azichem.com.

It is forbidden to dispose of the product and/or packaging in the environment.

READYMESH PS is produced/distributed by



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