



SYN.0307

## SYNTECH POLIUREA SPRAY - FC

Polyurea elastomeric system for contact with food and drinking water

### Customs Code

3909 5090

### Packaging

- Barrel 225 kg [A]
- Barrel 205 kg [B]
- Kit: 1 Barrel 225 kg [A] + 1 Barrel 205 kg [B]

### Application

- Two-components hot sprayer

Family  
**Syntech**

Product Lines

- Aqua
- Building
- Infratech

Components  
**Two-components**

Type  
**Polyurea resins and related accessories**

Functional Categories

- **Waterproofing with hot-sprayed elastomeric coatings (100% pure polyurea)**
- **Structural maintenance of dams, reservoirs, ducts and water ducts**
- **Structural maintenance of bridges and viaducts**
- **Protective, strengthening, polyurethane or epoxy coatings**

Appearance  
**Liquid + Liquid**

## Certifications and legislations



### EN 1504-2

Products and systems for the protection and repair of concrete structures - Surface protection systems for concrete



### D.M. 06/04/2004, n. 174

Regulation concerning materials and objects that can be used in fixed systems for the collection, treatment, adduction and distribution of water intended for human consumption (in implementation of Directive 98/83/CE).



### FOOD CONTACT COMPLIANCE



### CHEMICAL RESISTANT

Chemical-resistant product

## General description

SYNTECH POLIUREA SPRAY - FC is a pure aromatic polyurea specifically designed for contact with food substances and drinking water. 100% solid does not contain VOC and can only be applied by spraying using suitable bimixer machines. It is aromatic and is characterized by a high degree of elongation. It is a coating elastomer obtained from the reaction of an aromatic type isocyanate with an amine. PURE POLYUREA SUITABLE FOR FOOD CONTACT

## General features

Resistance to laceration: 100 +/- 5 KN/m

Tensile strength: 20 +/- 2 Mpa

Advantages of the system:

- Safe application even on irregular substrates, vertical or with large slopes.
- Possibility to create continuous layers, free of critical protuberances created by common joints.
- Possibility to create high performance, very thin layers, with low specific weight.
- Possibility to perform maintenance and/or repairs easy and efficiently.

## Dosage

From 2,00 to 2,50 kg of SYNTECH POLIUREA SPRAY - FC for each square metre of surface to be covered.

## Fields of application

SYNTECH POLIUREA SPRAY - FC is particularly used as waterproofing on concrete or as a protective coating for water containment tanks, primary containment, driveways and parking lots, purification plants, EPS coating, coating and protection of sheet metal, roofs, balconies and canopies in wood, tanks and pools, seamlessly without interruptions.



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## Basic features



Density:  
1.11-1.12 (A) - 1.00-1.05 (B) g/cm<sup>3</sup>



Dosage:  
2.0 - 2.2 kg/m<sup>2</sup>

**A:B**

Mixing ratio:  
1:1 (in volume) \_



Shelf-life:  
6 months



Suitable for contact with drinking water



Temperature of use:  
-10 / +80 °C



Use wearing protective glasses



Use wearing protective gloves



Available **colours**  
Transparent tending pale yellow

## Technical specifications

Concrete adhesion (cutting test) UNI EN 1542:1999: > 1.5 MPa

Gel time: 5 s

Hard to touch: > 30 s

Hardness UNI EN ISO 868:2005: 48 +/- 3 \_

Longitudinal elongation at break ISO 527-1:2012: 370 (+/- 30) %

Permeability to water vapor: 0.025 \_

Viscosity: 650 +/- 200 (A) - 400 +/-  
200 (B) mPas

Working temperature: -30 / +130 °C

## Tools cleansing

- Thinner for resins

## Applicable on

- Plasters
- Concrete
- Cement-based or lime-based mortars
- Prefabricated concrete
- Drywall
- Plaster (gypsum)
- Wood
- Metal surfaces
- Fiber-cement
- Tiles
- Floor screed
- Rock walls
- EPS
- Polystyrene



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## Substrate preparation

The support on which the polyurea system must be laid must be suitable for withstanding the stresses resulting from the intended use, such as static or dynamic loads, impacts, thermohygro-metric dilations, vibrations, etc. As regards the characteristics of the substrate (maximum humidity, cohesion, strength class, flatness, etc.) and the preparation of the surface that will accommodate the resin system, we recommend the requirements set out in chapter 5 of the UNI 10966 standard ("RESIN SYSTEMS FOR SURFACES HORIZONTAL AND VERTICAL - INSTRUCTIONS FOR DESIGN AND APPLICATION "). In any case, carefully clean and degrease the surfaces, removing any kind of dirt, paint residues or incoherent parts. The humidity of the support must be  $\leq 3\%$ . Evaluate the most convenient type of mechanical preparation (shot peening, sandblasting, hydro-washing, etc.). The surfaces must also be free from discontinuity, and possibly leveled and regularized with products from the FLOOR line or the REPAR line. In case of presence (even suspected) of humidity deriving from capillary rising from the substrate, it is recommended to apply in advance the epoxy resin for "wet substrates" SYNTECH PAVIDAMP. Tiled floors, or floors covered with pre-existing resin, must be subjected to mechanical roughening carried out with shot blasting, milling, bush hammering, etc., until the total elimination of the waterproof crust and the opacification of the surfaces. Remove dust after abrasion.

It is recommended to use Primer from the SYNTECH POLIUREA PRIMER range. On particularly absorbent substrates, to avoid the formation of craters / blowholes on the surface of the freshly sprayed product, it is recommended to use primers from the SYNTECH POLIUREA PRIMER range, always contacting the Azichem technical staff for clarification on the most suitable type to use. Apply several layers of primer until the porosity is saturated and providing a light dusting with clean and dry quartz sand (0.4-0.7 mm). Never dust off the primer. Provide suitable elastic sealing systems to cover joints, fittings, cracks or fissures subject to significant movements.

## Instructions for use

Pure polyurea SYNTECH POLIUREA SPRAY - FC requires a bimixer system capable of producing pressure above 180 bar and temperatures above 65°C. Contact Azichem technical staff for clarification on the best gun to use and details of the system air.

## Storage and preservation

Protect from freezing. Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Inadequate storage of the product may result in a loss of rheological performance. Protect from humidity. Store the product at a temperature between +5°C and +35°C.



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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](http://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](http://www.azichem.com).

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

See the safety data sheet to view the complete data. Protect materials from humidity and water.

*SYNTECH POLIUREA SPRAY - FC is produced/distributed by*



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