Urespray F-100 Isocianato 5332

DESCRIPTION

Urespray F-100 is a hybrid polyurea elastomer system formed by the reaction of two fast-drying liquid components mixed by hot spraying equipment.

CHARACTERISTICS

Urespray F-100 is a **highly flexible**, comprehensive elastic coating, without joins or overlaps, suitable for waterproofing. Because it dries in less than 5 seconds, it can be moved within a few hours of application, depending on the environmental conditions.

Because it is sprayed on, it can be used to coat awkwardly shaped surfaces with a complete, resistant film that attaches perfectly to the substrate.

APPLICATIONS

Urespray F-100 is primarily used for construction and industrial applications. It is mainly used to waterproof and protect:

- Landscaped roofs and facades
- Pitched or flat roofs
- Flat, trafficable roofs; balconies; terraces; parking areas; other roof types and concrete structures
- Pools
- Reservoirs and irrigation channels
- Retaining walls and foundations
- Elastomeric coating of polyurethane and expanded polystyrene foams.

Spray application means that irregular surfaces, or areas with complicated geometries, can be covered, forming a uniform film.

METHOD OF APPLICATION

The practical method of application is to use thermal spraying equipment, with the following characteristics:

- Pressure of components: 120–200 bar
- Pre-heater temperature: 70–80°C
- Hose temperature: 70–80°C

In cold environments, the temperature of the component pre-heaters should be adjusted to equalise pressures and ensure good mixing.

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PROCESS

Every surface to be coated should be clean of dust and grease and completely dry. The temperature of the surface should be between 10°C and 40°C, and the relative humidity should be below 75%.

Successive layers of elastomer applied one after the other bond strongly, even forming a single film. However, applying the product to cured elastomer requires a primer to ensure good adhesion between the two layers.

Urespray F-100 is especially formulated to adhere perfectly to rigid PUR foam. If the insulation is degraded by the passage of time, it should be cleaned and a new layer of PUR foam applied.

Syntox-FA primer is recommended for porous and non-porous substrates (metallic surfaces), and Syntpur PO-84 for porous substrates (industrial flooring, concrete and wood).

After **Urespray F-100** has been applied, we recommend the use of Alisyn-FA, a UV-resistant, aliphatic acrylic enamel, to prevent colour degradation. If more than 24 hours have elapsed since the application of **Urespray F-100**, Syntox-FA epoxy primer must be used before applying Alisyn-FA.

Urespray F-100 can be pigmented in different colours by the onsite addition of inorganic pigments to component A.

Component A tends to separate over time. Therefore, it should be stirred until completely homogenised, especially if pigmentation is being added.

COMPONENTS

COMPONENT A: **Urespray F-100**
A polyol mixture that contains catalysts, flame-retardants and stabilisers

COMPONENT B: **Isocianato 5332**
Modified MDI (Methylene diphenyl diisocyanate)

COMPONENT CHARACTERISTICS

Characteristics	Units	Isocianato 5332	Urespray F-100
Specific weight 20°C	g/cm^3	1,11	1,02
Viscosity	cPs	640 - 890 (25ºC)	500 - 1500 (22ºC)
Free NCO content	%	14,4 - 15,4	-

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SYSTEM SPECIFICATIONS

Measured in a test vessel at 22°C in the mixing ratio specified by the in-house standard (MAN-S01).

A/B mixture ratio: 100/100 by volume

Specifications	Units	Urespray F-100
Gel time	s	3 - 5
Set-to-touch time	s	6 - 10
Free density	g/L	900 - 1100

FOAM CHARACTERISTICS

Characteristics		Units	Urespray F-100
Apparent density	DIN 53420	kg/m^3	1000
Tensile strength Elongation	UNE EN ISO 527	MPa %	>20 >350
Tear strength	ISO 34-1:2011	N/mm	>70
Shore hardness	UNE EN ISO 868	Sh A	90
Resistance to strong chemical attacks	EN 13529:2005		see chemical resistance chart*
External fire performance	EN 13501-5		Classification B_{roof} (t1)
Consumption		Kg/m^2	1,5

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**Chemical Resistance chart (EN 13529:2005)*

Substance	Conditions	Final Shore D (initial shore 90)
H_2SO_4 (20%)	7 days, 10ºC	87,3
NaCl (20%)	7 days, 70ºC	85,5
NaOH (20%)	7 days, 40ºC	86,4
Bleach	7 days, 10ºC	86,4
Diesel	7 days, 10ºC	83,7
Motor oil	7 days, 10ºC	85,5

STORAGE RECOMMENDATIONS

Components A and B are sensitive to moisture and must be stored in airtight containers or tanks. The storage temperature should be between 15°C and 25°C.

Avoid lower temperatures that can cause crystallization in the isocyanate, as well as high temperatures that can cause alterations in the polyol.

With proper storage, the shelf lives are 9 months for Component A (polyol) and 9 months for Component B (isocyanate).

SAFETY RECOMMENDATIONS

There are no significant risks with the system if handled properly. Avoid contact with the eyes and skin. Preparation and handling must be in accordance with the product's safety data sheets.

AVAILABLE FORMATS

The materials are normally supplied in non-returnable, 220-litre metal drums (blue for component A and black for component B).

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