

Poliuretán® Spray
S-383-TL

Isocyanate
H

DESCRIPTION

Poliuretán® Spray S-383-TL is a two- component polyurethane system (polyol and isocyanate) formulated to obtain closed-cell rigid foams to be sprayed-in-place for thermal insulation. The system is specially performed for smooth finish surfaces.

Poliuretán® Spray S-383-TL system contains approved ecological foaming agents (HFCs) that are not ODP (Ozone Depletion Potential) and are mainly used to obtain excellent thermal insulation.

DESCRIPTION OF THE COMPONENTS

COMPONENT A: **Poliuretán® Spray S-383-TL**
Mixture of polyols, containing catalyst, flame-retardants, surfactants and foaming agents (HFC). No presence of HFCF.

COMPONENT B: **Isocyanate H**
(Methane diphenyl diisocyanate)

APLICACIONES

The system **Poliuretán® Spray S-383-TL** system is applied by spraying with high-pressure equipment fitted with heating, with a mixing ratio of 1:1 in volume. Their main applications are the thermal insulation of buildings, roofing, grounding, and terraces. Its smooth finish is particularly suitable for the application of thin coatings (paints, elastomers, polyureas.)

APPLICATION CONDITIONS

Cavitations of the pumps may cause a decompensation of the polyol mixture/isocyanate ratio producing foam with poor quality. In order to avoid such a problem, equipment suppliers recommend the use of separate pumps.

The surfaces must be clean, dry and free of dust and grease to ensure good adherence of the foam to the substrate; if the substrate is metallic it must also be free of oxide and rust. A suitable primer is recommended to guarantee good adherence on metal substrates as well as a minimum applied density of 37 Kg/m³.

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This is the best information available. However it is not a guarantee, as the complex circumstances of use with raw materials and appliances may alter the results

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The foam performance is influenced by a great number of factors which are listed below:

- Weather conditions: temperature and humidity of the atmosphere and the substrate surface, as well as other environmental factors (wind, etc.)
- Adjustment of the machinery, a proper ratio.
- Application type: vertical, horizontal, roofs.
- Application process: coat thickness, varnish application.

Coat thickness is perfectly controllable and can be modified by varying the speed of application and/or the gun-mixing chamber. **Poliuretán® Spray S-383-TL** should be applied in lifts or passes of no more than 50mm thickness per pass or lift.

It must be taken into account that the foam performance is greater the lower the number of coats applied for the same thickness. Nevertheless, it is not convenient to apply thickness above 50 mm per pass or lift, in order to avoid blistering and problems that may take place due a high exothermic reaction.

On cold surfaces, the first coat takes longer to react and growth is not usually 100%. Whereby, in these cases, the first coat should be a varnish for a heat development, which should heat the substrate providing a proper foaming of the second coat.

The recommended temperature in hoses is 30 to 50°C, depending on the weather conditions. The minimum recommended substrate temperature during spraying is 5°C.

COMPONENT CHARACTERISTICS

Characteristics	Unit	H	S-383-TL
Specific Weight at 25°C	g/cm ³	1,23	1,08
Viscosity at 25°C	mPa.s	230	400
Flash Point	°C	> 200	>170
NCO Content	%	31	-

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SYSTEM TECHNICAL SPECIFICATIONS

Measured in a test beaker at 22°C at the indicated mixing ratio. The test is carried out according to our standard (MANS-01).

Mixing Ratio: A / B: 100 / 100 in weight

Specification	Unit	S-383-TL
Cream Time	s	3 ± 1
Gel Time	s	10 ± 2
Tack Free Time	s	12 ± 2
Free Density	g / l	38 ± 2

FOAM PROPERTIES

Characteristics	Unit	S-383-TL
Applied average density UNE-EN 1602	Kg/m ³	41 ± 4
Compressive Strength 10% UNE-EN 826	Kg/ cm ²	> 200
Closed cell content ISO-4590	%	> 90
Initial Thermal Conductivity (10°C) EN 12667	W/m°C	0.021
Dimensional Stab. -20°C 24 hours	% Vol.	< 1
80°C		< 3
Fire reaction UNE-EN ISO 11925-2	Classification	E

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SAFETY RECOMMENDATIONS

Poliuretán® Spray S-383-TL system does not represent significant risks if handled properly. Avoid contact with eyes and skin. The instruction given in the safety Data Sheet must be followed during the manufacturing and handling of the system.

SUPPLY OF THE PRODUCT

Normally, the product is supplied in non-returnable steel drums of 220 litres (blue for Component A and black for Component B)

STORAGE RECOMMENDATIONS

VERY IMPORTANT: **Poliuretán® Spray S-383-TL** system components are sensitive to humidity and must be stored in hermetically sealed drums or containers. **The storage temperature must be kept between +15 and + 25°C.** Lower temperatures considerably increase the polyol viscosity, rendering it difficult to apply, and may build up crystallizations in the isocyanate.

Higher temperatures may cause alterations in the polyol, loss of blowing agent, greater consumption and swelling of the drum as well as uncontrolled foaming when the pump nozzle is placed into the drum. In order to avoid the latter, it is recommended to have the drums set-down for a certain period in a ventilated and fresh place before using them.

In case the drums are supplied with white plastic caps, special care should be taken during the handling of these caps, as they are more fragile than the metallic ones and could be deformed.

To maintain the aforementioned characteristics of the systems, the drums should be hermetically sealed when not in use.

Properly stored, the self-life is 6 months for Component A (polyol) and 9 months for Component B (isocyanate)