

Poliuretano® Spray
S-3032E**Isocianato**
H**DESCRIPTION**

Poliuretano® Spray are two-component polyurethane systems (polyol and isocyanate) formulated to obtain rigid foams to be sprayed-in-place for thermal insulation.

Poliuretano® Spray systems contain approved ecological foaming agents that are not ODP (Ozone Depletion Potential). These systems do not promote the greenhouse effect and are mainly used to obtain excellent thermal insulation.

**COMPONENTS**

- COMPONENT A:** **Poliuretano Spray S-3032E**
Mixture of polyols containing catalysts, flame-retardants and blowing agents. It does not contain HFC.
- COMPONENT B:** **Isocianato H**
MDI polymeric (Methane diphenyl diisocyanate).

USES

The system **Poliuretano® Spray S-3032E** 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.

CONDITIONS OF USES

The substrate must be clean, dry, and examples of dust and grease to ensure perfect adhesion of the foam on the substrate, the substrate if metal is recommended to use suitable unappret.

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: layer thickness, varnish application.

Layer thickness is perfectly controllable and can be modified by varying the speed of application and/or the gun mixing chamber; thickness should be between 10 and 40mm.

It must be taken into account that the foam performance is greater the lower the number of layers applied for the same thickness. Nevertheless, it is not convenient to apply thicknesses above 40 mm, in order to avoid blistering and problems that may take place due a high exothermic reaction.

Poliuretan® Spray **S-3032E**

Isocianato **H**

On cold and nonporous surfaces, the first layer should be a thin primer to promote adhesion.

The recommended temperature in hoses is 30 to 50°C, depending on the weather conditions and the working pressure between 1000 and 2000 psi. The minimum recommended substrate temperature during spraying is 5°C.

Prior to loading component A (polyol) in the machine, it must be homogenised for 5-10 minutes with an appropriate agitator.

COMPONENTS CHARACTERISTICS

Characteristics	Units	H	S-3032E
Specific weight 25°C	g/cm ³	1,23	1,17
Viscosity 25° C	mPa.s	230	300
NCO content	%	31	-

SYSTEM SPECIFICATIONS

Measured in a test beaker at 22°C, in the indicated mixing ratio. The test is carried out according to our standard (MANS-01) which is in accordance to the AENOR N CERTIFICATE method.

Mixing Ratio A / B: 100/100 in weight

Characteristics	Units	S-3032E
Cream time	s	3 ±1
Gel time	s	6 ±2
Tack free time	s	8 ±2
Free density	g / l	31 ±2

Poliuretano® Spray S-3032E

Isocianato H

FOAM SPECIFICATIONS

Characteristics		Units	S-3032E
Apparent Core Density	EN 1602	kg/m ³	30-40
Closed Cell Content	ISO-4590	%	<20
Reaction to fire	EN 13501-1	Euroclass	E
Thermal resistance and thermal conductivity	EN 12667 EN 12939		See performance chart
Water absorption (W _p)	EN 1609	Kg/m ²	≤0,2
Water vapour resistance factor (μ)	EN 12086	-	≥15

Performance chart

Sprayed insulation foam product CCC1 system. Diffusion open faces.

e _p	25	30	35	40	45	50	55	60	65
λ _D	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034
R _D	0,70	0,85	1,00	1,15	1,30	1,45	1,60	1,75	1,90
e _p	70	75	80	85	90	95	100	105	110
λ _D	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034
R _D	2,05	2,20	2,35	2,50	2,65	2,80	2,95	3,10	3,25
e _p	115	120	125	130	135	140	145	150	155
λ _D	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034
R _D	3,40	3,55	3,65	3,80	3,95	4,10	4,25	4,40	4,55
e _p	160	165	170	175	180	185	190	195	200
λ _D	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034	0,034
R _D	4,70	4,85	5,00	5,15	5,30	5,45	5,60	5,75	5,90

e_p Thickness; mm

λ_D Declared aged thermal conductivity; (W/mK)

R_D Thermal resistance level; (m²K/W)

SAFETY RECOMMENDATIONS

Poliuretano® Spray 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.

Poliuretan® Spray
S-3032E**Isocianato**
H**SUPPLY**

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: Poliuretan® Spray S-3032E 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 3 months for polyol; and 9 months for Component B (isocyanate).