RAYSTON SPRAY FOAM HFO 40

Foam rigid polyurethane bi-component

DESCRIPTION

Rayston Spray Foam HFO 40 is a rigid two-component polyurethane foam system (polyol + isocyanate). It does not contain fibers or products that are bio-hazardous or likely to be. The expansion agent is HFO (trans—1-chloro-3,3,3-trifluoropropene).

APPLICATION

Rayston Spray Foam HFO 40 is a product indicated for thermal insulation by direct projection on the support in applications in which it is not subjected to permanent loads, such as vertical walls and ceilings inside. Applied in facades provides waterproofing to water, maintaining some transpiration of the constructive solution

TERMS OF USE

Polyol	100:100 in volume / 100:110 in weight	
:isocyanate		
mixture ratio		
Component	30-60°C	
temperature	30-00 0	
Working	60-120 bar	
pressure		
Ambient	0 to 40°C	
temperature	0.10.40.0	
Relative		
humidity of the	<90%	
air		
Wind speed		
	<30 kph	
Stand		
temperature	5-40°C	

Support moisture

No surface condensation

COMPLEMENTARY INFORMATION TO THE COMPONENTS AND REACTIVITY (20°C)

	POLYOL	ISOCYANATE	Method /
			Norm
Hydroxyl index	180 – 220mg KOH	-	
Water content	2%	-	(ISO-14.897)
Viscosity	300-600 mPa.s	180-250 mPa.s	
Content in NCO	-	30-32 %	
Cream time	4 +/-1 seconds		
Thread time	11 +/-1 seconds		
Free density in	31-35 grams/liter		
glass			

PROPERTIES OF FOAM AND CE MARKING

Designation code:	PU EN 14315-1-CCC4-CT3 (20)-TFT18(20)- FRB40(20)-W0,2- MU80	
Applied density	42 – 47 grams/liter	(UNE IN 1602)
	See table of benefits	
Thermal conductivity	(0.028 W/mK up to 75 mm)	(UNE-EN 12.667)
Reaction to fire	Class E (valid for all thicknesses)	
		(UNE-EN
		13823:2002)
Compressive strength	Undeclared	Undeclared



Short-term water absorption	≤ 0.2	
Resistance factor to diffusion of water vapor (μ)	≥ 80	
Closed-cell content	≥ 90 %	Does not allow the passage of water



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EN 14315-1:2013 Rayston Spray Foam HFO 40 Rigid polyurethane foam system for use as ThIB Thermal insulation in buildings

Reaction to fire: E

Thermal resistance and thermal conductivity: See performance table

Water vapour transmission: Expressed as resistance factor to the passage of water vapour $(\mu) \colon 80$

Short-term water absorption by partial immersion: 0.2 Kg/m²

Durability of reaction to fire versus aging/degradation: Reaction to fire behavior does not decrease over time

Durability of thermal resistance against aging / degradation: The declared thermal resistance is determined taking into account aging

Durability of compressive strength against aging/degradation: Compressive strength does not decrease over time

Continuous incandescence: Standard test method not available

PU EN 14315-1-ccc4-CT3 (20)-TFT18(20)-FRB40(20)-W0,2-MU80

TABLE OF BENEFITS

Coating type: None or open to diffusion			
Thickness	Declared aged thermal conductivity ëo W/m·K	Thermal resistance level Ro M2⋅ K/W	



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30 mm	0,028	1,05
35 mm	0,028	1,25
40 mm	0,028	1,40
45 mm	0,028	1,60
50 mm	0,028	1,80
55 mm	0,028	1,95
60 mm	0,028	2,15
65 mm	0,028	2,30
70 mm	0,028	2,50
75 mm	0,028	2,70
80 mm	0,027	3,00
85 mm	0,027	3,20
90 mm	0,027	3,40
95 mm	0,027	3,55
100 mm	0,027	3,75
105 mm	0,027	3,95
110 mm	0.027	4,15
115 mm	0,027	4,30
120 mm	0,026	4,70
125 mm	0,026	4,90
130 mm	0,026	5,10
135 mm	0,026	5,30
140 mm	0,026	5,45
145 mm	0,026	5,65
150 mm	0,026	5,85
155 mm	0,026	6,05
160 mm	0,026	6,25
165 mm	0,026	6,45
170 mm	0,026	6,65
175 mm	0,026	6,85
180 mm	0,026	7,05
185 mm	0,026	7,25
190 mm	0,026	7,45
195 mm	0,026	7,65
200 mm	0,026	7,85

PRODUCT PRESERVATION

Components should be stored between 10 and 25 °C. protected against moisture ingress at all times. Under suitable storage conditions and in the original packaging, the maximum period for consumption is 3 months for polyol and 6 months for isocyanate, from the moment of manufacture.

TOOL CLEANING

After applying the product, it is important to pay attention to the cleanliness of the machine to avoid contamination in the next use of a different system with the same machine.

The use of solvents for cleaning machine components is discouraged. A plasticizing cleaning fluid, such as Rayston Fluid, is suitable. Component B must be completely removed from all parts exposed to air and replaced with this cleaning liquid.

SAFETY

Component B of **Rayston Foam HFO 40** contains isocyanates. Always follow the safety instructions in the Material Safety Data Sheet. As a rule, good ventilation and /or respiratory protection (combined organic steam filters + particles) is needed along with protective clothing. This product should be used only for the applications described herein. This product is designed for industrial and professional use. It is not suitable for DIY type applications.

RECOMMENDATIONS FOR THE ENVIRONMENT

Empty containers should be handled with the same precautions as if they were full. Treat empty containers as hazardous waste and transfer them to an authorized waste manager. If the containers still have some material, do not mix



it with another product without knowledge of possible dangerous reactions. Components A and B can be mixed in a ratio of 1/1 to obtain an inert material, but never done in volumes greater than 5 liters to avoid a dangerous evolution of heat.

ADDITIONAL INFORMATION

The information contained in this TECHNICAL SHEET, as well as our advice, both written and provided verbally or through tests, are given in good faith based on our experience and the results obtained through tests carried out by independent laboratories, and without serving as a guarantee for the applicator, who must take them as merely indicative references and with strictly informative value.

We recommend studying this information in depth before proceeding to the use and application of any of these products, although it is especially convenient that they carry out tests "in situ", to determine the suitability of a treatment in the place, with the purpose and in the specific conditions that occur in each case.

Our recommendations do not exempt from the obligation that the applicator has to know in depth, the correct method of application of these systems before proceeding to their use, as well as to carry out as many previous tests as are appropriate if the suitability of these for any work, installation or repair is doubted, taking into account the specific circumstances in which the product is going to be used.

The application, use and processing of our products are beyond our control and therefore under the sole responsibility of the installer. Consequently, the applicator will be solely and exclusively responsible for damages arising from the total or partial non-observance of the user and installation manual and, in general, from the inappropriate use or application of these products. This data sheet overrides the previous ones.

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