FUTURA-SPRAY POLIOL 20029D32

TWO-COMPONENT POLYURETHANE SYSTEM FOR THE MANUFACTURE OF CLOSED CELL RIGID FOAM BY PROJECTION

Product developed for applications in thermal insulation of buildings and large surfaces of irregular shapes using the projection technique

PROPERTIES

Product 2 Components consisting of a Component A mixture of Polyols, catalysts, stabilizers and expanding agents and a component B consisting of Diphenylmethane-Diisocyanate (MDI).
It does not contain CFCs, HCFCs or HFCs that affect the ozone layer.
No adhesives needed: Good adhesion to the substrate where it is applied.
Speed ??of execution and mobility without the need for joints.
Allows continuous thermal insulation in a single process.
Possibility of application in difficult places.

PHYSICAL-CHEMICAL CHARACTERISTICS

Presentation:	Component A: Blue Color. Component B: Color Red
Feature	Componente A
Specific weight	1.18 Kg/L
Viscosity	260 mPa.s
Hydroxyl number (OH)	265 ± 20 mgKOH/g (UNE 53985-1)
Water content	2.60 ± 0.2
NCO content	31.5 ± 1 % (UNE 92120-1)
Percentage of gases with low thermal conductivity:	> 10%
CO2 percentage:	> 65%

The characteristics of the sprayed foam are summarized in the following Table:

Feature	Poliol Spray 20029D32	Norma
Density	37 Kg/m3	UNE 92120-1
Compression resistance	0.165 N/mm2	UNE-EN 826
Water absorption (10% def)	< 0.25 % vol.	EN 1609 Method A
Closed cell content	> 90 %	UNE 92120-1
Water vapor diffusion resistance factor	MU60	UNE EN 12086 Method A
Dimensional stability	- 20 ºC < 2% vol+70 ºC < 9% vol	DIN 53431
Reaction to fire	E	EN 13501-1

* Quality specifications.

DECLARATION OF PERFORMANCES ACCORDING TO THE CONSTRUCTION PRODUCTS REGULATION Nº 308/2011

Intended use	ThIB - Thermal insulation of buildings
Evaluation and verification system for the consistency of product	EVCP3 system for all features except Reaction to FireEVC4 System for

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performance (EVCP)	reaction to fire
Harmonized Standard	EN 14315-1:2013
Reaction to fire	E (valid for all thicknesses) EN 13501-1:2018
Water permeability	Short-term water absorption by partial immersion:< 0.25 Kg/m2 EN 1609 Method A
Water vapor permeability	Water vapor transmission resistance factor: 60 EN 12086 Method A
Compression resistance	CS(10\Y)150 Compressive strength does not decrease with time EN 14318-1:2013
Durability of reaction to fire versus aging/degradation	Reaction to fire behavior does not decrease over time EN 14318-1:2013
Durability of compression resistance against aging/degradation	Compressive strength does not decrease with time EN 14318-1:2013
Continuous incandescence	EN 14318-1:2013

PERFORMANCE TABLE (NO COATING OR OPEN FACES)

Thickness	Declared aged thermal conductivity (/\D) W/m.K	Thermal resistance level R D m2.K/W
30	0,030	1,00
35	0,030	1,16
40	0,030	1,33
45	0,030	1,50
50	0,030	1,66
55	0,030	1,83
60	0,030	2,00
65	0,030	2,17
70	0,030	2,33
75	0,030	2,50
80	0,030	2,67
85	0,030	2,88
90	0,030	3,05
95	0,030	3,22
100	0,029	3,46
110	0,029	3,81
120	0,029	4,15
130	0,029	4,50
140	0,029	4,84
150	0,029	5,19

MODE OF USE

It is applied by spraying using a high viscosity Graco pump. To do this, it is necessary to stir Component A and then mix with component B, with a mixing ratio of 100/100 parts by volume (1:1), according to Table a. continuation:
Cream time (1):3 ± 1 seconds
Thread time (2):7 ± 2 seconds
Free glass density (3):30 ± 2 g/L

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(1) Creaming time: Time in which a sudden increase in the viscosity of the mixture occurs from the beginning of stirring. It is determined by visual appreciation and coincides with the beginning of expansion.
(2) Thread time: Time it takes for the mixture to form a thread from the start of stirring. It is determined by visual appreciation and coincides with the moment in which, by repeatedly inserting and removing a thin rod inside the foam, the first thread appears.
(3) Glass free density: Quotient between the weight of the foam contained in a glass and its volume.
The foam reacts exothermically on the surface where it is applied, remaining adhered to it in a few seconds.
The expansion of the foam is carried out through the action of a gas and carbon dioxide (CO2) from the chemical reaction of water with the Isocyanate.
The percentage of gases occluded in the foam cells is as follows:
Percentage of gases with low thermal conductivity > 10%.
CO2 percentage > 65%.
To clean materials and utensils, use FUTURSOLVENT 001 before the product hardens. Once the product has hardened it can only be removed by mechanical means.
Storage: Components A and B are sensitive to humidity, and should always be stored in hermetically closed drums or tanks. The absorption of water by component A can cause processing failures. On the other hand, component B reacts with humidity forming insoluble polyureas and releasing CO2.
The storage temperature must be between +10 and +25º C. Temperatures outside this range must be avoided, as they can cause crystallization of component B at low temperatures (at -10ºC component B crystallizes, causing clogging of the machine pipes), as well as altering the composition of component A at higher temperatures. Likewise, direct exposure of the drums to the sun should be avoided.
Never leave the container of Component A (polyol) open, as this would cause a loss of expanding agent and reach the flash point.
If the drums are stored properly, the shelf life is 3 months for component A and 6 months for component B.

APPLICATIONS

Very useful in all types of construction companies, quick repair contracts, masonry in general, community maintenance, waterproofing, etc.
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