SPR 330

Spray Foam

1 - Description

SPR 330 is a two component (polyol-isocyanate), rigid spray polyurethane foam system with closed cell structure which is applied with high pressure and heated special spray machines for heat insulation purpose.

SPR 330 contains ecological blowing agents (HFC) that do not damage the ozone layer (ODP =0).

2 - Product Information

Packacking	480kg (1057lb) set. 250kg (550lb) PMDI + 230kg (507lb) Polyol Blend
Shelf Life	6 months
Storage Conditions	Store in cool and dry conditions between +10°C and +30°C. (+50°F and +86°F)

3 - Properties

- Two component
- Closed Cell structure
- Seamless, no heat bridge
- Does not grow insect and fungus
- Excellent thermal insulation for a long time
- High energy saving
- Water vapor permeability
- Low storage and transportation cost
- Excellent sound insulation
- Covers the applied area against air and water leaks, thermal changes
- Super adhesion to the applied areas

4 - Application Areas

- Roof
- Wall
- Ceiling
- Chicken farms and barns
- Ships and storage tanks
- Cold storage room
- Other thermal insulation areas

5- Technical Data

Physical Properties

Property	Method / Conditions	Data
Core Density	ASTM D 1622	30-32 kg/m^3
		1,9-2,0 lb/ft^3
R-Value (1")	ASTM C 518	6,50
R-Value (3,5")	ASTM C 518	23
Closed Cell Content	ASTM D 6226	> 92%
Dimensional Stability	ASTM D 2126	< 9%
Compressive Strength	ASTM D 1621	207 kPa
		30 PSI
Tensile Strength	ASTM D 1623	N/A
Water Absorption	ASTM D 2842	< 2%
Air Permanence	ASTM E 2178	N/A
Surface Burning Characteristics	ASTM E 84	Class A

Reaction Parameters	Unit	Data
Cream Time	sec.	2-4
Gel Time	sec.	5-7
Tack Free Time	sec.	8-10

* Tests were performed at 23°C (73°F) under laboratory conditions.

Foam	Method / Conditions	Polyol Blend	Polymeric MDI
Physical Appearance	--	Liquid	Liquid
Color	--	Light Brown	Brown
Density	ASTM D 891	1,15 ±0,03 gr/ml	1,24 ±0,03 gr/ml
Viscosity	ASTM D 4878	300-400 cps	220-250 cps
Mixing Ratio	--	1/1 By Volume	

6 - Application Conditions

- The application surface should be clean and dry, the elements that prevent adhesion should be cleaned from the surface. Do not wash to clean the surface.
- Recommended temperature of application surface is between 5°C (41°F) and 40°C (104°F).
- The recommended air temperature is between 10°C (50°F) and 40°C (104F).
- It is not recommended to apply in windy weather.
- Recommended component temperatures and machine settings are as follows.

Parameters	Data	
Polyol Blend Temperature	40-55°C	104-122°F
Polymeric MDI Temperature	40-55°C	104-122°F
Hose Temperature	40-55°C	104-122°F
Machine Pressure	80-110 bar	1160–1600 Psi

* Settings may vary depending on weather conditions and machine specifications.

- Polyol Blend must be mixed thoroughly before starting and during application.

Yeşilbayır Mah. Şimşir Sk. No: 22
Arnavutköy - İstanbul / TÜRKİYE
Tel: 0212 771 13 71 Fax: 0212 771 38 88
www.akfix.com - info@akfix.com

- In order to obtain mixture in the right ratio, the filters of the machine should be cleaned and pump maintenance should be done. Improper mixing ratio of components results in low quality foam formation. In addition, the improper mixing ratio causes the adhesion problem, the increase in consumption, the deterioration of the cell structure.

Mixing Ratio	Unit	Data
Polyol Blend / Polymeric MDI	By volume	100 / 100
	By weight	100 / 108

7 - Directions for Use

- AKFIX SPR 330 is applied in layers to the surface to be thermal insulation until the desired thickness is obtained. Application is made in different thicknesses according to the regional climate conditions and application areas.
- The ideal application thickness for each layer is between 1.0cm (0,4in) and 2.0cm (0,8in). If thicker than 2.0cm (0,8in) is applied, blistering may occur due to exothermic reaction.
- Since the surface is generally cold in the first layer application, the reaction is slow and the desired thickness cannot be obtained. Therefore, the first coat application is usually applied as a primer layer. In the second layer application to be applied, the desired thickness will be obtained more easily because the surface is warmer.
- In outdoor applications which is under direct sunlight, the foam color becomes darker after a period of time, the foam surface becomes dusty and the foam becomes more brittle. Polyurea (AKFIX POLYUREA Series), liquid PU membrane (AKFIX PU MEMBRANE Series) or acrylic membrane (AKFIX EM600) must be applied to protect the foam from UV rays.

8 - Consumption

- Material consumption may vary for many reasons. These reasons are the air temperature, application surface temperature, machine temperature settings, mixing ratio, number of application layers and so on.
- According to the application thickness and the number of application layers the theoretical consumption table is as follows.

Application Thickness	Consumption
3cm	1,45 – 1,90 kg
1,2 in	3,20 – 4,20 lb
5cm	2,30 – 2,80 kg
2 in	5,07 – 6,17 lb

***** The applied layer thickness is between 1,00cm (0,4in) - 1,50cm (0,6in).

9 - Safety

Contains Diphenylmethane-4,4'-Diisocyanate. Harmful by inhalation. Irritating to eyes, respiratory system and skin. Do not breathe spray/vapor. Wear suitable protective clothing and gloves. Use only in well-ventilated areas. Pressurized container. Keep away from direct sunlight and do not expose temperatures over 122°F. Do not pierce or burn, even after use. Keep away from sources of ignition, no smoking. Keep out of the reach of children.

10 - Disclaimer