

RF 5320

PRODUCT DESCRIPTION

RF 5320 is a fully blended (except blowing agent) rigid polyurethane foam system. This product is designed for Reduced CFC 11 or HCFC 141b blown insulation panel and pipe applications. This product contains flame retardant, giving foam with a minimum fire rating of B3 standard according to DIN 4102.

CHEMICAL PROPERTIES

RF 5320A (Polyol Blend)

Appearance	Light Brown Liquid
Specific Gravity @25°C	1.12 - 1.14
Viscosity @25°C	1530 - 1730 mPas

RF 5320B (Isocyanate)

Appearance	Dark Brown Liquid
Specific Gravity @25°C	1.22 – 1.26
Viscosity @25°C	150 – 250 mPas

TYPICAL REACTION DATA

Laboratory

	A : HCFC 141b : B	A : CFC 11 : B
Mixing Ratio	100 : 20 : 141	100 : 25 : 141
Chemical Temperatures (°C)	26	26
Cream Time (s)	20 – 22	20 – 23
Gel Time (s)	95 – 115	100 – 120
Free Rise Core Density (kg/m ³)	22 – 25	23 – 25

Machine

Type	Low Pressure		High Pressure	
Blowing Agent	HCFC 141	CFC 11	HCFC 141	CFC 11
Chemical Temperatures (°C)	26	26	26	26
Chemical Mixing Pressures (bar)	5	5	150	150
Cream Time (s)	21 – 25	21 – 25	14 – 18	14 – 18
Gel Time (s)	102-112	107-117	80-90	85-95
Free Rise Core Density (kg/m ³)	22-24	23-25	21-23	22-24

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The application, use and processing of the products are beyond our control and therefore, entire your own responsibility. Should, in spite of this, liability be established for any damage, it will be limited to the value of the goods delivered by us and used by you. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery.

TYPICAL PHYSICAL PROPERTIES

Property	Test Standard	Unit	Value	Value
Blowing Agent			HCFC 141b	CFC 11
Overall Moulded Density	-	kg/m ³	46.0	40
Core Density	ASTM D1622	kg/m ³	38.1	35
Compressive Strength - Parallel - Perpendicular	ASTM D1621	kPa	212 190	213 189
Dimensional Stability 48 hours exposure @ -15°C @100°C	ASTM D2126	% volume change	-0.4 +1.2	0.1 +0.9
Thermal Conductivity	ASTM C518	W/m°C	0.021	0.019
Flammability	DIN 4102	-	B3	B3
Horizontal Burn Test - Mean Burn Length - Mean Burn Time	BS 4735	mm s	25 0	25 0

STORAGE OF MATERIALS

The materials are sensitive to humidity and partially used drums should be tightly sealed to prevent the ingress of moisture.

RF 5320A (Polyol Blend)

The Polyol blend has a shelf life of six months from date of manufacture when stored indoors at temperatures of 20-30°C. The Polyol blend should be thoroughly mixed before use.

RF 5320B (Isocyanate)

The Isocyanate has a shelf life of one year from date of manufacture when stored indoors at temperatures of 20-30°C. Avoid storage temperatures of below 0°C (as some crystallization may occur) or above 50°C (as formation of insoluble solids may occur).

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GENERAL SAFETY PRECAUTIONS

The following guidelines apply to both Polyol and Isocyanate components.

Handling

Contact with skin and eyes must be avoided. Safety goggles, protective gloves and overalls must be worn when working with these chemicals.

Ventilation

This product must be used in a well ventilated area. Extraction fans to reduce HCFC 141b build up are recommended to ensure air concentrations are below quoted flammability limits.

First Aid Measures

Excessive Inhalation : In the case of excessive inhalation, where the patient feels dizzy or light headed, remove patient from exposure.

Skin Contact : Wash skin immediately with water, followed by soap and water. If symptoms (irritation or blistering) persist obtain medical attention.

Contaminated clothing should be laundered before re-issue.

Eye Contact : Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes.

Obtain medical attention.

Ingestion : Provided the patient is conscious, wash out mouth with water and give 200-300ml of water to drink. Do not induce vomiting.

Further Medical Treatment

Consult Doctor and accompany patient with this Urethane Information document with symptomatic treatment and supportive therapy as indicated.

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APPLICATION GUIDELINES

Facing Preparation

The facings should be clean, dry, and free of grease, oil, solvent or other contaminants, which will interfere with proper adhesion and/or polyurethane insulation quality. In most cases, a primer should be used to enhance the foam adhesion to the substrate. This product can be used with facing temperatures in the range 25° - 45°C. Higher facing temperatures (40° - 45°C) will enhance foam flow and adhesion.

Equipment Type

This product is suitable for both Low and High Pressure dispensing equipment. For hand mix grades, please contact our Sales Department.

Jig Design

The pressure the rising foam exerts on the jig depends on the degree of overpack, mould temperature, panel thickness, and foam free rise core density. For a system with a free rise core density of 25kg/m³; the following table can be used as a guide:

Degree of Overpacking	Expansion Pressure (Bar)
1.2	0.1 - 0.2
1.5	0.3 - 0.4
2.0	0.7 - 0.9
2.5	1.3 - 1.6

* Typical overpacking for RF 5320 will be 1.7 - 2.2

Demould Properties

Typical demoulding times for this product are as follows:

Panel Thickness (mm)	Demould Times (mins)
50mm	20
100mm	30
150mm	45

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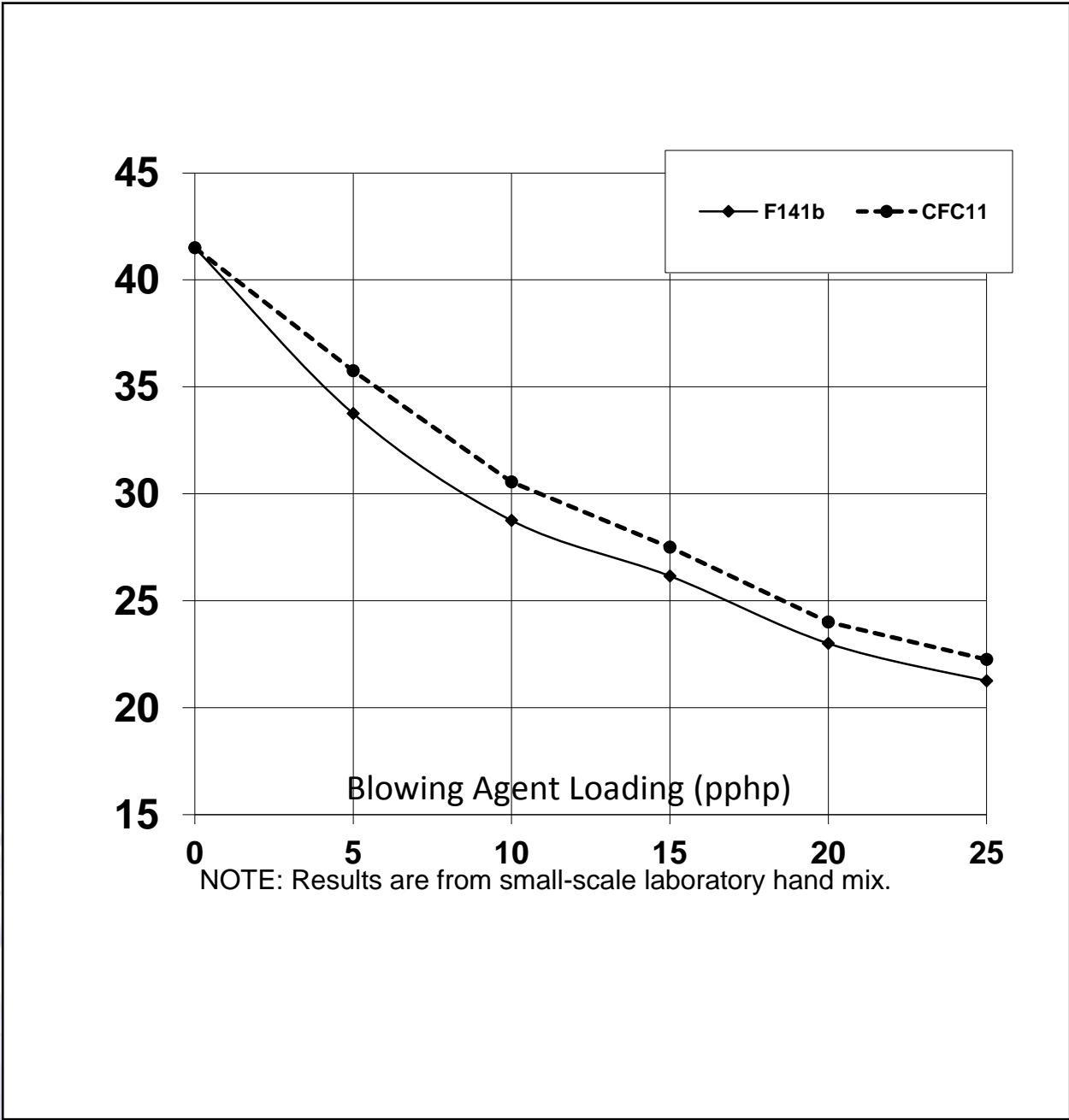
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Free Rise Core Density (kg/m³)

Free Rise Core Density versus Blowing Agent level





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