

CROSSIN ATTIC SOFT

1. PRODUCT DESCRIPTION

CROSSIN ATTIC SOFT is a two-component polyurethane spray system used for the **production of open-cell** semi-rigid foam with self-extinguishing properties.

POLY INGREDIENT: CROSSIN ATTIC SOFT POLY

ISO COMPONENT: ISO KOMPONENT B

2. APPLICATION

CROSSIN ATTIC SOFT is designed to perform internal thermal and acoustic insulation by spraying. It is used to insulate roofs, attics, various types of roofs, ceilings, as well as walls in wooden, brick, concrete, steel structures and in skeleton systems of residential, industrial, public utility buildings, hangars and media premises.

The core density of the injected foam reaches 7 – 10 kg/m³ depending on the thickness of the layers and the execution of the application.

3. CHARACTERISTICS OF COMPONENTS

POLY INGREDIENT

Recipe polyol mixture in the form of an oily liquid without suspensions, light yellow to orange in color.

Density at 20°C	1.09 ± 0.03 g/cm ³
Viscosity at 20°C	280 ± 100 mPa·s

ISO COMPONENT

Mixture of aromatic polyisocyanates, principally diphenylmethane diisocyanate; liquid of brown color, without suspensions.

Density at 20°C	1.22 ± 0.02 g/cm ³
Viscosity at 20°C	350 ± 100 mPa·s

4. FOAMING CHARACTERISTICS UNDER LABORATORY CONDITIONS

Reaction times and apparent density obtained under laboratory conditions (at 20°C) with manual foaming in a cup.

🌀 Cream time:	4 ± 1 sekunda
🌀 Gel time:	10 ± 2 sekunda
🌀 Tack free time:	13 ± 3 sekundy
🌀 Core density:	8,1 ± 0,3 kg/m ³

5. RECOMMENDED PROCESSING CONDITIONS

CROSSIN ATTIC SOFT is a system that must be processed using specialized foaming units equipped with a spray head.

The recommendations are based on experience in applying spray foam using the Graco Reactor H-XP3 with propler P2 ELITE pistol (mixing chamber 01).

🌀 Volumetric components ratio: **POLY : ISO - 100 : 100**

🌀 Temperature settings on the machine:

Components (ISO and POLY) heating temperature:	50 - 58°C
Heating the hoses:	50 - 58°C
Components pressure:	80 - 110 Bar (1160 - 1595 psi)
Components temperature (in drums):	30 – 40°C

The recommended ambient temperature is between 10°C and 35°C. The suggested substrate temperature is between 15°C and 50°C with a relative ambient humidity of up to 70% and a porous substrate humidity of up to 15%. Non-porous substrate should be dry.

Insulated surfaces should be prepared in advance. They should not contain dust, oil, loose fragments and other agents that may reduce the adhesion of foam.

Before spraying, carefully protect the surfaces of neighboring objects, floors, furniture, etc., to avoid accidental dirt during spraying – it should be borne in mind that the sprayed foam has a very good adhesion, hence it may be difficult to remove.

Spraying should be done using specialized spraying equipment. POLY and ISO components should be heated to 30 – 40°C before use.

Important: The POLY component should always be used before use be thoroughly mixed with a barrel stirrer (for a period of approximately 1 hour; Graco Twistork is recommended).

The temperature of the hoses should be 50 – 58 °C. The pressure setting for the POLY Component and the ISO Component should be the same and be 80 – 110 Bar (1160 - 1595 psi).

Spraying should be done in such a way that the resulting layers are as thick as possible (> 100 mm).

When processing the system, take into account the recommendations of the machine manufacturer and the guidance and information contained in the Safety Data Sheets of both components.

6. PHYSICO-MECHANICAL PROPERTIES OF THE SPRAYED FOAM

The measurements were carried out on foam cut from a sample made using a specialized spraying machine:

Parameters	Result	Standard
Core density	$\geq 7 \text{ kg/m}^3$	EN 1602:2013-07
Reaction to fire classification:	E	EN 13501-1:2019-02
	B-s1, d0 ⁽¹⁾	
	NRO ^(1,2)	-
Fire resistance	REI 30 ⁽³⁾	EN 13501-2:2016-07
Short-term water absorption with partial immersion	$P_s = 0.85 \text{ kg/m}^2$	EN 14315-1:2013-06
Coefficient of thermal conductivity	$\lambda_{\text{mean},j} = 0,036 \text{ W/(m}\cdot\text{K)}$	EN 12667:2002-12
	$\lambda_{90.90} = 0.037 \text{ W/(m}\cdot\text{K)}$	EN 12667:2002-12
Declared value	$\lambda_D = 0.037 \text{ W/(m}\cdot\text{K)}$	EN 12667:2002-12
Thermal conductivity coefficient in high humidity conditions (50°C, 90% relative humidity)	$\lambda_{50c,90\%rh} = 0.0370 \text{ W/(m}\cdot\text{K)}$	EN 12667:2002-12
Compressive stress at 10% relative deformation	$\sigma_{10} \geq 5 \text{ kPa}$	EN 826:2013-07
Water vapour diffusion resistance coefficient	$\mu = 3$	EN 12086:2013-07
Single-numeric sound absorption indicator	$\alpha_w = 0.50$	EN ISO 11654:1999
Sound absorption class	D	EN ISO 11654:1999
Temperature stability:		
70°C, 90% RH, after 48h	$d \leq 4 \%$	EN 1604:2013-07
	$sz \leq 4 \%$	
	$g \leq 1 \%$	
-30°C, after 48h	$d \leq 2 \%$	EN 1604:2013-07
	$sz \leq 2 \%$	
	$g \leq 0,5 \%$	
Foam adhesion perpendicular to the substrate/tensile strength	$> 34 \text{ kPa}$	EN 1604:2013-07
Foam adhesion perpendicular to the substrate of fiber-cement board	$> 20 \text{ kPa}$	EN 1604:2013-07
Interlayer adhesion	$> 40 \text{ kPa}$	EN 1604:2013-07
Contents of closed cells	$\leq 10 \%$	EN ISO 4590:2016-11
Resistance to mold fungi, Method A	0 – no growth	EN ISO 846:2002

Full mechanical properties of the foam are obtained after 24 hours of seasoning.

7. PACKAGE INFORMATION

The CROSSIN ATTIC SOFT system is packed in metal barrels with a capacity of 216 dm³ or IBC containers with a capacity of 1 000 dm³.

moisture and direct sunlight. The shelf life for component POLY in the manufacturer's originally closed packaging, stored under the recommended conditions, is **3 MONTHS** from the date of manufacture. For special shipments, please contact the appropriate person from the logistics department directly in order to make the correct selection of packaging (other requirements).

8. TRANSPORT AND RECOMMENDED STORAGE CONDITIONS

Both components of the system should be stored in tightly closed packages in dry rooms with a temperature of 15 - 25 ° C. Protect against

9. LEGAL REGULATIONS AND CERTIFICATES

- CROSSIN ATTIC SOFT does not contain ozone-depleting foaming agents, in accordance with the European Union (EU) regulations on the trade and use of controlled substances – Regulation (EC) No. 1005/2009 of 16 September 2009.
- The CROSSIN ATTIC SOFT polyurethane system has been placed on the market in accordance with the European Union Regulation No. 305/2011, together with the assessment of performance carried out in accordance with the European harmonized standard PN-EN 14315-1:2013.
- The product has the CE marking and the Declaration of Performance No. 05DOP-2019-PL has been issued for it.
- ⁽¹⁾ Concerns the arrangement of layers consisting of CROSSIN ATTIC SOFT foam on combustible or non-flammable primers, covered with plasterboard cladding, on a wooden or metal structure with a thickness of G-K 12.5 mm, the classification of the product placed on the market is the responsibility of its manufacturer
- ⁽²⁾ DZ.U. ANNOUNCEMENT OF THE MINISTER OF INFRASTRUCTURE AND DEVELOPMENT of 17 July 2015 on the publication of a uniform text of the Regulation of the Minister of Infrastructure on the technical conditions to be met by buildings and their location SECTION VI Fire safety Chapter 1 General principles requirements defined in the regulation as non-spreading fire in accordance with Annex 3 to the regulation
- ⁽³⁾ Classification of systemic attic construction in the REI fire resistance class of 30 wooden roofs with Norgips enclosures according to classification report No LBO-077-KZ/21
- The polyurethane system has a hygienic certificate of PZH (Państwowy Zakład Higieny) B-BK-60211-0251/24

10. ADDITIONAL INFORMATION

The data contained in this Technical Information are based on the results of tests performed in our laboratory and on practical experience. These data do not constitute a guarantee of the properties of the final finished product. The results obtained may differ from those given when the product is used under conditions other than those assumed.

At the same time, we would like to inform you that we provide assistance in the implementation and application of our CROSSIN ATTIC SOFT system, and if necessary, we help in the selection of system parameters. In all matters related to the purchase and use of CROSSIN ATTIC SOFT, please contact our technical and sales representatives.