

TECNOFOAM G-2060 - SPRAY POLYURETHANE FOAM (SPF) SYSTEM FOR THERMAL INSULATION(APPLIED DENSITY ±60 KG/M<sup>3</sup>)

TECNOFOAM G-2060 polyurethane system for thermal insulation, is specifically formulated to apply foam with applied density around (±52~62 kg/m<sup>3</sup>). Its application has to be done by the specific spray equipment.

# CE

#### USES

The polyurethane foam system TECNOFOAM G-2060 can be used in these situations:

- It's specifically designed for thermal insulation in construction, industrial, farming or agricultural facilities.
- In applications where flat roofs, interior floors and installations with floor heating system, all those with high compression needs on the surface.(including vehicular traffic)
- It is specially designed to be coated with TECNOCOAT P-2049, without the appearance of bubbles, "pinholes" or other pathologies.

Applied density	52 ~ 62 kg/m³	
Thermal conductivity	0,023 ± 0,001 W/m·K	
Stirring time	2 ~ 5 secs	
Gel time	3 ~ 5 secs	
Tack free time	9 ~ 12 secs	
Fire reaction	Euroclass E	
Mix ratio (vol.)	100/100	
Application method	spray equipment	





## **GENERAL FEATURES**

- TECNOFOAM G-2060 is a product with high insulating capacity, easy to apply covering all surfaces
- It is specially designed to be coated with TECNOCOAT P-2049, without the appearance of bubbles, "pinholes" or other pathologies.
- it does not emit any substance to the environment once installed.
- the properties of this polyurethane foam system allow it to adhere to any surface such as concrete, ceramic, metal, polyurethane foam, wood, acrylic paints (checking the situation of areas recommended).
- the application of TECNOFOAM G-2060 is completely continuous, instead of the classic non-continuous thermal insulation material, saving any kind of union between applications, and providing a optimum thermal insulation surface with high thermal insulation parameters
- TECNOFOAM G-2060, is under european norme EN 14315-1:2013, thermal insulation products for buildings, in situ formed sprayed rigid polyurethane (PUR)
- it has CE mark on the basis of a declaration of performance DoP prepared in accordance with EU regulation 305/2011. www.tecnopol.es or statement available on demand.

## PACKAGING

Metal drums of 250 kg for each product (polyol and isocyanate)

## SHELF LIFE

POLYOL COMPOUND: 3 months/ 6 months(need to be shaken before use)

ISOCYANATE COMPOUND: 6 months

Temperature within 5 °C ~ 35 °C, provided it is stored in a dry place, non direct contact with sun.

## **APPLICATION METHOD**

In general, you should take the following factors:

- the application of polyurethane foam system TECNOFOAM G-2060, should be performed under non-presence of moisture or water from the support stand on which to apply either at the time of application as a posteriori.
- the substrate must be clean and free of dust
- in applications with high temperature gradients a vapor barrier is placed on the warm side of the insulation to prevent condensation
- perform successive layers of a thickness 1.5~2 cm each, until the desired thickness
- TECNOFOAM G-2060 adheres firmly on most common materials such as wood, plasterboard, steel, OSB, plywood, cement, inside masonry exterior plaster panels, and construction itself.
- not shrinkage after performing the expansion.
- reactivity times (in laboratory conditions):?
  - REACTING TIME: 3-5 seconds
  - EXPANDING TIME: 9-12 seconds

# APPLICATION REQUIREMENTS (SPRAY EQUIPMENT)

For the formation, it is necessary to mix the two initial liquid components, isocyanates and amines by our our spray equipment TC2049 (<u>spray-equipment.tecnopolgroup.com</u>) or similar (proper maintenance and cleaning it is recommended). The general parameters for this material, will be the following:

- Heater isocyanate temperature: ±40-45 °C
- Heater amines temperature:±40-50°C



- Hose temperature:±40-50°C
- Pressure:1.700-2.000 psi

These temperature and pressure parameters have to be valued, ratified or be varied by the applicator, depending on the conditions of each climate zone, weather situation or as projection equipment specifications.

#### HANDLING

These safety recommendations for handling, are necessary for the implementation process as well as in the pre-and post, on exposure to the loading machinery.

- Respiratory Protection: When handling or spraying use an air-purifying respirator.
- Skin protection: Use rubber gloves, remove immediately after contamination. Wear clean body-covering. Wash thoroughly with soap and water after work and before eating, drinking or smoking.
- Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in the air.
- Waste: Waste generation should be avoided or minimized.
- Incinerate under controlled conditions in accordance with local laws and national regulations.

Anyway, consult the material and safety data sheet of the product.

## COMPLEMENTARY PRODUCTS

The TECNOFOAM system may be complemented with the following products as a means of protection or to improve its physical-mechanical properties depending on its exposure, the desired finish or the type of substrate.

TECNOCOAT 2049 LV: pure low viscosity polyurea. Approximate consumption 1,5 kg/m<sup>2</sup>

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DESMOPOL: single component polyurethane membrane for waterproof. Approximate consumption 1,5 ~ 2 kg/m<sup>2</sup>

TECNOTOP 1C/2C: colored aliphatic resin used to protect against UV rays; to use after DESMOPOL or TECNOCOAT waterproofing membranes



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## COMPOUND CHARACTERISTICS

characteristic	POLYOL	ISOCYANATE(MDI)
№ OH DIN 53240-2	180 ~ 220 mgKOH/g	
Viscosity at 25°C BROOLFIELD VISCOSIMETER	200 ~400 mPa.s	210 mPa.s
NCO content ISO 14896		31 %
Specific weight at 25°C	1,10 g/cm <sup>3</sup>	1,23 g/cm <sup>3</sup>

# APPLIED SYTEM CHARACTERISTIC (REACTION)

CHARACTERISTIC	VALUE
Stirring time at 20°C	2 ~5 seg
Gel time at 20°C	3 ~5 seg
Tack free time at 20°C	9~12 seg
Density free rise at 20°C	40~50 kg/m <sup>3</sup>
Close cell content ASTM 2856	>90 %
Thermal conductivity value t a20°C EN-12667	0,023 W/mK
Compression strength	>300 KPa
Fire reaction EN-13501	Euroclass E

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