



**TECNOFOAM G-2008 - SPRAY POLYURETHANE FOAM (SPF) SYSTEM FOR THERMAL INSULATION (APPLIED DENSITY  $\pm 8\text{--}12 \text{ KG/M}^3$ )**

TECNOFOAM G-2008, spray polyurethane open-cell foam system (SPF) for and thermal and acoustic insulation, is specifically formulated to apply low-density foam ( $\pm 8\text{--}12 \text{ kg/m}^3$ ). Its application must be carried out by the specific reactor equipment by mixing Tecnofoam G-2008 (polyol side) and Tecnofoam G-2049.I (isocyanate side). The blowing agent is water.

It has CE marking on the basis of a statement made DoP Declaration of Performance (DoP) under the European Norm EN-14315-1:2031.



## USES

The spray polyurethane foam system TECNOFOAM G-2008 can be used in these situations:

- application continuous thermal insulation systems in residential buildings, businesses or industries
- indoor applications ceilings, interior chambers facade, ventilated facades, internal side of roofs, made with wood structure, or other material (see compatibility)

**NOTE:** For other applications/situations, please, consult our technical department

applied density	$\pm 8\text{--}12 \text{ kg/m}^3$
thermal conductivity	0,039 W/m·K
cream time at 20°C	4~8 secs
gel time at 20°C	8~13 secs
tack-free time at 20°C	13~17 secs
reaction to fire	Euroclass F <sup>1</sup>
emissions(VOC)	A+aC
application	spray equipment



## COLORS



## GENERAL FEATURES

- TECNOFOAM G-2008 is a product with high thermal insulating capacity, easy to apply and to protect all the internal surfaces of the building
- the application and training is done by our spray equipment TC2049 ([spray-equipment.tecnopolgroup.com](http://spray-equipment.tecnopolgroup.com)) or similar
- the properties of the polyurethane foam system TECNOFOAM G-2008 allow it to adhere to any surface such as concrete, ceramic, metal, polyurethane foam, wood, acrylic paints (checking the situation of areas recommended).
- it forms a continuous coat without joints preventing the formation of "heat bridges" and providing an optimum thermal insulation surface with high thermal insulation parameters
- the system has the European Norm for the environmental Emissions (VOC). It doesn't emit any substance once applied.
- the blowing agent is water
- it is free from harmful to the ozone layer, so do not promote the greenhouse effect (NOT contain HFCs, HCFCs, VOCs, etc ...); it does not emit any substance to the environment once installed. The applied system is 100% recyclable by mechanical means friendly to the environment. No gas collection for recycling and/or destruction is required
- the thermal conductivity coefficient remains unchanged from the application and along with the product life.
- It is regulated under the European standard EN 14315-1: 2013 "Thermal insulating products for applications in buildings, rigid polyurethane foam (PUR) products", for which it has CE marking based on a DoP Declaration of Performance.

## YIELD

The performance is around 1kg/m<sup>2</sup> at 10 cms of thickness.

## PACKAGING

Metal drums of 215 kg for the polyol, and 250 kg for the isocyanate.

## SHELF LIFE

POLYOL COMPOUND: 4 months (we recommend stirring before use)

ISOCYANATE COMPOUND: 6 months

Temperature within 5 °C ~ 35 °C, provided it is stored in a dry place, with no direct contact with the sun.

## APPLICATION METHOD

In general, you should take the following factors:

- the application of polyurethane foam system TECNOFOAM G-2008 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
- metal surfaces should be protected with an anti-corrosive primer before being coated with foam. On smooth surfaces without pores, galvanized steel, polypropylene, etc ... a secure grip primer should be applied
- to apply in one direction to achieve the expansion which is about 10 ~ 12 cm. per coat. The final thickness will be defined by the project specifications under the Local Rules.



- if necessary, and once fully expanded, apply a second layer on the already initially applied.
- its great expansion causes sometimes have to cut the excess with the help of a saw
- TECNOFOAM G-2008 adheres firmly to most common materials such as wood, plasterboard, steel, OSB, plywood, cement, inside masonry exterior plaster panels, and construction itself.
- reactivity times (in laboratory conditions):
  - REACTING TIME: 4 seconds
  - EXPANDING TIME: 8 seconds

## APPLICATION REQUIREMENTS (SPRAY EQUIPMENT)

For the formation, it is necessary to mix the two initial liquid components, isocyanates and polyols with our spray equipment TC2049 ([spray-equipment.tecnopolgroup.com](http://spray-equipment.tecnopolgroup.com)) or similar (proper maintenance and cleaning it is recommended).

The general parameters for this material will be the following:

- Heater isocyanate temperature:  $\pm 40-45$  °C
- Heater polyol temperature:  $\pm 45-55$  °C
- Hose temperature:  $\pm 45-50$  °C
- Pressure: 1.450-1.750 psi (100 to 120 bar)

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 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 safety data sheet of the product, which is publicly available.

## COMPOUND CHARACTERISTICS

characteristic		POLYOL	ISOCYANATE(MDI)
Viscosity	BROOKFIELD VISCOSIMETER	290mPa.s	210 mPa.s
NCO content	ISO 14896	---	31 %
Specific weight		1,09 g/cm <sup>3</sup>	1,23 g/cm <sup>3</sup>
Mix ratio by volume		100	100
Mix ratio by weight		100	109

*Results performed in the laboratory at 20°C and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.*



## APPLIED SYSTEM CHARACTERISTICS (REACTION)

CHARACTERISTIC	VALUE
Stirring time	4~8 secs
Gel time	8~13 secs
Tack-free time	13~17 secs
Density free rise	8 kg/m <sup>3</sup>
Closed-cell content ASTM 2856	<15% (CCC1)
Thermal conductivity value EN-12667	0,039 W/mK
Tensile strength perpendicular to face EN-1607:2013	8,4 kPa
Dimensional stability (-20°C/-%) EN-1604:2013	0,0 0,1 0,1 %
Dimensional stability (70°C/ 90%) EN-1604:2013	-2,8 -2,3 0,8 %
GWP(Global Warming Potential)	1
ODP (Ozone Depletion Potential)	0
VOC (volatile organic compounds ) ISO 16000-6	Class A+aC
Acoustic test	-40db in 195mm (thickness)

Results performed in the laboratory at 20°C and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

## VOC EXPOSITIONS TABLE:

Component	N° CAS	C exp at 28 days	Class
formaldehyde	50-00-0	8	A+
acetaldehyde	75-07-0	5	A+
toluene	108-88-3	1	A+
tetrachloroethylene	127-18-4		A+
xylene	108-38-3	<1	A+
1,2,4-trimethylbenzene	95-63-6	0	A+
1,4-dichlorobenzene	106-46-7		A+
ethylbenzene	100-41-4		A+
2-butoxyethanol	111-76-2		A+
Styrene	100-42-5	1	A+
TCOV	---	1011	A
<b>Resulting emission class</b>			<b>A</b>

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