



**TECNOFOAM G-2035 HFO - SPRAY**  
**POLYURETHANE FOAM (SPF) SYSTEM FOR**  
**THERMAL INSULATION (APPLIED DENSITY  $\pm 35$**   
**KG/M<sup>3</sup>)**

Tecnofoam G-2035 HFO is a spray polyurethane foam system (SPF) for thermal insulation, specifically formulated to apply foam with applied density around (34~38 kg/m<sup>3</sup>). Its application must be carried out by a specific equipment by mixing Tecnofoam G-2035 HFO (polyol side) and Tecnofoam G-2049.I (isocyanate side). The blowing agent is HFO gas.



## USES

For application in the following situations:

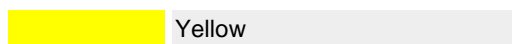
- Thermal insulation system in construction, industrial, farming, or agricultural facilities.
- In applications inside ceilings, interior chambers facade, ventilated facades, partitions in general.

**NOTE:** call our technical department about the application to other substrates or scopes of use

Applied density	34 ~ 38 kg/m <sup>3</sup>
Initial thermal conductivity at 23°C	0.022 W/m·K
Stirring time	3~ 5 secs
Gel time	9 ~ 10 secs
Tack-free time	12 ~ 14 secs
Close-cell content	>95%( CCC4)
Fire reaction	Euroclass E
Application method	Spray equipment



## COLORS



Yellow



## GENERAL SPECIFICATIONS

- Spray polyurethane foam (SPF), for thermal insulation, with the ability to eliminate existing thermal bridges, easy to apply.
- The application and training is done by our spray equipment TC2049 ([spray-equipment.tecnopolgroup.com](http://spray-equipment.tecnopolgroup.com)) or similar
- The blowing agent is HCFO-1233zd(E). Does not contain HCFC, HFC, in line with EU regulations. It is free of substances harmful to the ozone layer, so it does not promote the greenhouse effect (it DOES NOT contain HFCs, HCFCs, VOCs, etc...) and it does not emit any substance into the environment once installed. The system applied is 100% recyclable by means of environmentally friendly mechanics. The capture of gases for recycling and/or destruction is not required.
- Do not apply on terraces, balconies, roofs, or in outdoor exposure situations.
- The total applied density obtained depends on the site environment and substrate conditions during the application process, as well as the spray technique. As the thickness of the layer increases, the density will decrease
- The properties of the polyurethane foam system allow it to adhere to any surface such as concrete, ceramic, metal, polyurethane foam, wood, acrylic paints, asbestos, interior masonry, exterior drywall (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
- Foam applied without allowing for cooling may result in excess heat build-up and result in fire or the generation of offensive odors that may not dissipate with time.
- The applicator/contractor must know and respect the local regulations according to the use, taking into account the physical and chemical characteristics of the polyurethane foam system to be used and comply with all applicable and appropriate guidelines for processing and handling guidelines.
- 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.

## PACKAGING

Metal drums of 230 kg for the polyol, and 250 kg for the isocyanate.

## SHELF LIFE

- POLYOL COMPOUND: 3 months
- ISOCYANATE COMPOUND: 6 months

Always store the drums before use at a temperature between 5 and 35 °C (41 to 95 °F), always in dry areas, without the possibility of moisture entering, and without direct contact with the sun or heat sources, otherwise they may be affected its reactivity and performance. Low ambient temperature increase the viscosity of the polyol, which makes it difficult to mix and apply, and can generate crystallization in the isocyanate, which can cause its mixing ratio to vary and the consequent internal problems in the mixing and application equipment. Very high temperatures can modify polyols, causing loss of the blowing agent, increasing consumption, and producing the swelling of the metallic drum. To avoid these last situations, it is recommended to let the drums for a while before use, in a cool and ventilated place.



## APPLICATION METHOD

In general, you should take the following factors:

- The application of this polyurethane foam system should be performed under the 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, oils or greases.
- 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.
- In applications with high-temperature gradients a vapor barrier is placed on the warm side of the insulation to prevent condensation.
- In case of existence of expansion joints, they must be covered with a non adhesive plastic tape to avoid breaks in the SPF due to the movement of the substrate
- It is recommended to protect the polyurethane foam using paints or elastomers.
- NEVER SHAKE OR RECIRCULATE POLYOL COMPONENT (BLUE DRUM)
- Performs successive layers of a thickness of 2~3 cm each until getting the total planned thickness. If necessary, and once fully expanded, apply a second layer over the one already applied initially. The maximum thickness per layer that can be achieved is 4-4.5 cms. Wait to apply the second layer, until the minimum temperature on the first layer was 40-50°C (104 to 122°F)
- The desired total thickness will be defined by the project according to its specifications and local standards, and must be known by the applicator/contractor.
- The ideal drum temperature for processing Tecnofoam (Polyol and Isocyanate) is 20 to 30°C. (68 F to 86°F)

## 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:

- Isocyanate heater temperature: 40-50 °C (104°F to 122°F)
- Polyol heater temperature: 40-45°C (104°F to 113°F)
- Hose temperature: 40-50°C (104°F to 122°F)
- Working pressure: 1.450-1.750 psi (100 - 120 bar)
- Mixing chamber (recommended): GU-07008-2

These temperature and pressure parameters must be valued, ratified or slightly varied by the applicator, depending on the conditions of each climatic zone, weather situation or according to the specifications of the projection equipment. It is the responsibility of the owner / applicator of the equipment to keep it in perfect condition in order to maintain the correct mixing ratio of the two components that TecnoPol delivers separately, by periodically updating its maintenance controls. During the execution of the application, it may be necessary to correct these parameters according to changing external conditions, as well as to verify the correct operation of the machine (pressure and temperature).

## HEALTH AND SAFETY

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.



- Re-occupancy of the work site without respiratory equipment is minimum 24 hours providing the correct ventilation for the area sprayed.
- Contractors and applicators must comply with all applicable and appropriate guidelines for storage and safety guidelines.

Consult the material and safety data sheet of the products of the system.

## COMPOUND CHARACTERISTICS

Characteristic	POLYOL	ISOCYANATE(MDI)
N° OH DIN 53240-2	280 mgKOH/g	----
Viscosity BROOKFIELD VISCOSIMETER	<600 mPa.s	180 ~250 mPa.s
NCO content ISO 14896	---	31 %
Specific weight	1.20 g/cm <sup>3</sup>	1.23 g/cm <sup>3</sup>

Results performed in the laboratory at 20°C (77°F) and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

## APPLIED SYSTEM CHARACTERISTICS (REACTION)

CHARACTERISTIC	VALUE
Cream / Stirring time	3 ~5 secs
Gel time / tack-free time	9 ~10 secs / 12 ~ 14 seg
Free rise density / Applied density	28 ~32 kg/m <sup>3</sup> / 34 ~38 kg/m <sup>3</sup>
Closed-cell content	>95 % (CCC4)
Aged thermal conductivity value EN-12667	0.028 W/mK
Fire reaction EN-13501	Euroclass E
Water absorption by partial immersion EN 1609	0.10 W/(m*K)
Water vapor transmission EN 12086	μ=102
Dimensional stability (-20°C/ 70°C,90%HR) EN-1604	DS (TH)3 / DS(TH)1
Application temperature range (substrate and ambient)	5 ~ 40°C (41 to 104°F)
Max. relative humidity	90%
Max. substrate humidity (dew point)	0

Results were performed in the laboratory at 20°C (68°F) and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

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