



TECNOFOAM G-2035 - SPRAY POLYURETHANE FOAM (SPF) SYSTEM FOR THERMAL INSULATION (APPLIED DENSITY ± 35 KG/M³)

TECNOFOAM G-2035, spray polyurethane foam system (SPF) for thermal insulation is specifically formulated to apply foam with applied density around ($\pm 32 \sim 38$ kg/m³). Its application must be carried out by the specific reactor equipment by mixing Tecnofoam G-2035 (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-2035 can be used in these situations:

- a complete and continuous system of thermal insulation in construction, industrial, farming or agricultural facilities.
- in applications inside ceilings, interior chambers facade, ventilated facades, partitions in general.

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

applied density	32 ~ 38 kg/m ³
thermal conductivity	0,031 W/m·K
stirring time	3 ~ 5 secs
gel time	9 ~ 12 secs
tack-free time	12 ~ 15 secs
fire reaction	Euroclass E
closed-cell content	<80% (CCC2)
mix ratio (vol.)	100/100
application method	spray equipment



COLORS

	Salmon
	Green



GENERAL FEATURES

- TECNOFOAM G-2035 is a product with high insulating capacity, easy to apply to cover all surfaces using our spray equipment TC2049 (spray-equipment.tecnopolgroup.com) or similar
- 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 blowing agent is water. The gas occluded in the internal cells of the product formed is CO₂, created from the reaction between the water contained in the polyol and the isocyanate.
- 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
- TECNOFOAM G-2035 system is 100% recyclable by mechanical means friendly to the environment. , and 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.
- the properties of this spray 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).
- 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 240 kg for the polyol, and 250 kg for the isocyanate.

SHELF LIFE

- POLYOL COMPOUND: 3 months (stir before the mixing)
- ISOCYANATE COMPOUND: 6 months

Stock the drums at a temperature within 5 °C ~ 30 °C, in a dry place, keep away from direct sunlight, extreme heat, cold, or moisture. Low temperatures increase the viscosity of the polyol which makes it difficult to mix and apply, and in isocyanate, they can generate crystallizations, which can vary its mixing ratio and causing internal problems in the mixing modifying the applied system properties.

APPLICATION METHOD

In general, you should take the following factors:

- the application of polyurethane foam system TECNOFOAM G-2035 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
- the range of the surface temperatures is 5°C to 40°C
- in applications with high-temperature gradients, a vapor barrier is placed on the warm side of the insulation to prevent condensation
- it is recommended to waterproof the polyurethane foam
- performs successive layers of a thickness of 4~5 cm each until getting the total planned thickness. Wait to apply the second layer, until the minimum temperature on the first layer was 40-50°C
- TECNOFOAM G-2020 adheres firmly to most common materials such as wood, plasterboard, steel, OSB, plywood, cement, inside masonry exterior plaster panels, and construction itself.
- no shrinkage after performing the expansion.



APPLICATION REQUIREMENTS (SPRAY EQUIPMENT)

For the formation, it is necessary to mix the two initial liquid components, isocyanates and amines by our spray equipment TC2049 (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)
- Mixing chamber (recommended): GU-07008-2

Anyway, these parameters for adjusting the projection equipment are approximate and may change depending on the weather conditions of the environment at the moment to apply, therefore, it is the responsibility of the applicator values in each case the option to choose.

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.

Anyway, consult the material and safety data sheet of the products of the system.

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/m²

DESMOPOL: single component polyurethane membrane for waterproof. Approximate consumption 1,5 ~ 2 kg/m²

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



COMPOUND CHARACTERISTICS

characteristic		POLYOL	ISOCYANATE(MDI)
N° OH	DIN 53240-2	180 ~ 220 mgKOH/g	----
Viscosity	BROOKFIELD VISCOSIMETER	320 ~ 420 mPa.s	210 mPa.s
Water content	ISO 14897	3,6 ~ 3,8 %	----
NCO content	ISO 14896	---	31 %
Specific weight at 22°C		1,15 g/cm ³	1,23 g/cm ³

APPLIED SYSTEM CHARACTERISTICS (REACTION)

CHARACTERISTIC	VALUE
Stirring time	3 ~5 swcs
Gel time	9 ~12 scs
Tack-free time	12 ~15 secs
Density free rise	27 ~32 kg/m ³
Applied density	32 ~38 kg/m ³
Closed-cell content	<80% (CCC2)
Thermal conductivity value EN-12667	0,031 W/mK
Fire reaction EN-13501	Euroclass E
Range of temperatures (substrate/ambiance)	5 ~ 40°C
Max. relative humidity	90%
Max. substrate humidity (dew point)	0

Results were 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. Public values shown in the Declaration of Performance issued under the European standard EN 14315-1: 2013 "Thermal insulating products for applications in buildings, rigid polyurethane foam (PUR) products".

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. The customer assumes full responsibility for quality control, testing, and determination of the suitability of products for its intended application or use.

We warrant that our products will meet our written liquid component specifications. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability or fitness for a particular purpose since Tecnopol Sistemas S.L.U. does not control the execution, since Tecnopol Sistemas S.L.U. does not control the execution. Our total liability and customers' exclusive remedy for all proven claims is the replacement of the nonconforming product and in no event shall we be liable for any other damages. While descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, they are provided for guidance only. Because many factors may affect processing or application/ use, Tecnopol Sistemas S.L.U. recommends that the reader make tests to determine the suitability of a product for a particular purpose prior to use.

No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of Tecnopol Sistemas S.L.U. terms and conditions of sale. Further, the descriptions, designs, data, and information furnished by Tecnopol Sistemas S.L.U. hereunder are given gratis and Tecnopol Sistemas S.L.U. assumes no obligation or liability for the description, designs, data or information is given or results obtained, all such being given and accepted at the reader's risk.

All data furnished refers to standard production using manufacturing testing tolerances. The product user, and not Tecnopol Sistemas S.L.U., is responsible for determining the suitability and compatibility of our products for the final user's intended use.

The liability of Tecnopol Sistemas S.L.U. and its affiliates for all claims is limited to the purchase price of the material.

Products may be toxic and require special precautions in handling. Users should obtain detailed information on toxicity, together with proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards.

No freedom from any patents or other industrial or intellectual property rights is granted or to be inferred.

