TECHNOFORM

Instructions for use

Adhesion Prime

Insulating profiles
for windows, doors
and facades.

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1. Product purpose

The purpose of Technoform Adhesion Prime (APR) is to improve the adhesion characteristics of the surface of the polyamide to achieve optimum connection between the adhesive and polyamide.
Technoform APR is a dispersion of particles of alumina powder on the polyamide surface, increasing the adhesion surface property of the polyamide for gluing silicones.

2. Constraints regarding the geometry of application

The shape of the polyamide can limit the conditions in which Technoform APR can be applied. Technoform APR is most effective on exterior flat surfaces with widths greater than 1/5" (5 mm). Application of APR onto fins, curved surfaces, and shallow depressions is possible but should be specifically evaluated for its feasibility and are out of structural and weather-proof standards. Deep cavities, internal geometries, and surfaces with widths less than 1/5" (5 mm) are not possible to be treated currently, but also out of standards. The designs should be checked by Technoform and by the customer.
Adhesive type tested is silicone (1-part or 2-part based) structural or weather sealant from Dow Chemical. Any different adhesive from the previously described should be validated by the customer before productive phase.

3. Constraints regarding the design for what is intended

Technoform APR is a surface treatment with the aim of improving the bonding between polyamide strips and silicones. Any structural or weather-proof project or system design must be evaluated under the standards described in the current document, or other more restrictive from customer side, including the silicone manufacturer within the process to confirm the feasibility of the application.

Technoform APR is intended to be used in designs for windows doors and facades that require adhesion between the thermal break and frame, panel, or glazing. It is recommended to follow EN16759 *Bonded Glazing for doors, windows and curtain walling*, ASTM C1401 *Standard Guide for Structural Sealant Glazing* or ASTM C1193 *Standard Guide for Use of Joint Sealants*, depending if the system is designed for weather-proof or for structural bonding and the world region where is intended to be used.

4. Conditions of usage and storage

Profiles with Technoform Adhesion Prime should be utilized within 8 weeks after receipt of product.
It is mandatory to keep Technoform APR profiles stored in:

- Areas not exposed to the weather.
- Areas away from sources of humidity.
- Areas away from heat sources.
- Areas away from dust in suspension.

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Keep product at the Technoform's crate and covered with protective film until use to reduce environmental impacts, dust accumulations, or product damage. The ideal storage temperature range is 10-30ºC (50-86ºF).
For a correct bonding, the profile surface must be taken care of. Technoform APR is suitable for single use, in in-house processes and for weather seal or structural sealing silicones in aluminium profiles with thermal break. The optimal sealing range is between 10 and 25°C (50 to 77 ºF). It is mandatory to clean the surfaces with Isopropyl alcohol (IPA) before applying the silicone. Technoform APR application does not require the use of chemical or plasma primers, except specific recommendation from the silicone manufacturer.

5. Limitations of usage in other production processes

Behaviour of Technoform APR in any other process or condition (like powder coating or anodizing, see table below) has not been evaluated and therefore there is no guarantee of proper behaviour. Behaviour of Technoform APR has not been tested with additional confection processes such as powder coating, drilling, or punching.
Only treated surfaces of polyamide profiles manufactured and labelled for each specific project (laser marked) are covered by the current document, until the reception at customer site.

6. Specific security considerations

The use of gloves is recommended to protect the product, as the surface treatment is physically active. For best results use product in clean work environments only.

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7. Main Features	
Purpose	Thermal insulation designs that require enhanced adhesion of the thermal barrier profiles onto frame panel or glazing, in windows doors and facades. Recommended guidelines are EN 16759, ASTM C1401 and C1193 with self weight supported glazing and insulating panel designs.
Color	Grey or clear grey surface over a black or dark grey Technoform substrate.
Material	PA 66 GF25 and LLPA 66 GF25 with pure Alumina (>99%) pulverized in solid state.
Width and Minimum Surfaces	1/5” (5 mm) minimum lane. Pre-testing and project approval phases are mandatory.
Suitable Processes	Weather seal or Structural sealing silicone applied in factory processes for windows, doors, and facades. It is not suitable any process that can modify the surface treatment, as powder coating, anodizing, masking, flame, drilling, punching, machining, etc.
Sealing Temp. Range	Application of silicone recommended from 10 to 25 °C (50-77 °F).

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Usage Time	Polyamide profiles with Technoform APR must be glued in a time frame maximum of 8 weeks after reception of the material. A visual inspection is recommended before usage to detect possible loss of surface treatment or any surface pollution, that can reduce the performance of the application.
Handling	Handling using gloves.
Storage	Indoor in protected zones free from dust and moisture. Stored and closed into the original bundle of Technoform until its usage. The material should be kept away from any source of ignition, moisture, or incompatible substances. Storage at a temperature from 10° to 30°C (50-86°F).

In case of specific questions we gladly offer our individual support.

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