



# ANTICORROSIVE ALIPHATIC POLYURETHANE WITH GRAPHENE OXIDE



# DATA SHEET

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### Description

It is a coating based on aliphatic polyurethane resin and catalyst. It is an easy to prepare and apply, glossy film coating. It has good adhesion and excellent hiding power. Due to its great durability and performance, it is ideal for general works on metal, wood, and concrete surfaces.

### Features



High corrosion protection.



Excellent adhesion to surfaces.



Good chemical resistance.



High abrasion resistance.



Excellent resistance to weathering.

### Use

Aliphatic Polyurethane is used to protect and decorate wood, metal and concrete surfaces that are exposed to the elements, ideal for exteriors and interiors. The previous use of epoxy primer increases the durability of the finish, as well as the resistance to some chemical products such as acids, bases, solvents, and oils.

### Yield

Yield of 8-10 m<sup>2</sup> /L depending on the porosity and texture of the surface, and the color to be applied.

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### Physical properties

#### Aliphatic Polyurethane

<b>Resin type</b>	Aliphatic Polyurethane
<b>Physical state</b>	Liquid
<b>% Solids</b>	47.0 - 49.0
<b>Density (Kg / L)</b>	0.990 - 1.200
<b>Brookfield Viscosity (cps)</b>	1000 - 1600

#### Catalyst

<b>Colour</b>	Transparent
<b>Physical state</b>	Liquid
<b>% Solids</b>	47.0 - 49.0
<b>Density (Kg / L)</b>	0.990 - 1.200
<b>Brookfield Viscosity (cps)</b>	1000 - 1600

#### \*Recommended film or coating thickness:

<b>Thickness</b>	<b>Minimum</b>	<b>Maximum</b>
Wet, mils (microns)	7.0 (175)	10.0 (250)
Dry, mils (microns)	5.0 (125)	7.0 (175)

### Colors

Available in industrial colors (ask for the range of colors)

### Drying time

At ambient conditions of 25°C (77°F) and 50% relative humidity. Drying time is longer at lower temperatures.

- **Touch** 60 min
- **To coat** 2 - 3 h
- **Full cure (Hard)** 24 h

### Presentation

At ambient conditions of 25°C (77°F) and 50% relative humidity. Drying time is longer at lower temperatures.

- 18 liter kit: includes 1 foil bucket of 18 liters that contains 14,116 liters of Aliphatic PU and 1 4 liter foil canister which contains 3,884 liters of Catalyst aliphatic, for a total of 18 liters of product.



The use ratio of the product is 4 to 1 by volume, 4 volumes of polyurethane aliphatic, for 1 volume of aliphatic catalyst.

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### Material handling

#### Surface Preparation

Before applying, the surface must be clean and dry, free of dust, grease, oil, rust, as well as any other contaminant.

Old or poor paint should be completely removed if possible, or else sanded down.

On new metallic surfaces, if the surface is shiny or smooth, you should sand until the shine is dulled or porosity is caused. For best results use Graphenergy epoxy primer.

#### Product preparation

Pour the contents of the catalyst can into the container containing the aliphatic polyurethane and mix thoroughly. Subsequently, the product is ready to be applied by brush, roller, spray systems, either airless or compressor. The product does not require dilution. In case the user considers diluting the product, use acrylic thinner.

The maximum dilution with acrylic thinner should not exceed 15% for spray application and 10% for brush or roller application.

Once the product mixture is prepared, it has a shelf life of at least 6 hours for application in ambient conditions of 24 °C and 50% relative humidity.

#### Product Application

-It can be applied by brush, roller, or airless spray systems. With airless equipment follow the equipment manufacturer's instructions to use the proper nozzle.

-Apply the product on the surface, first apply in one direction until perfectly covered, then apply perpendicularly to the first, forming a cross.

-Between each application, allow to dry for 30 minutes. The material heals completely in 12 hours.

-Once the application is finished, wash the equipment used with standard solvent or thinner.

### Recommendations

- The paint can be applied directly or with a maximum dilution of 15%. In case of dilution, use only acrylic thinner.
- Mix the contents of the containers well, after mixing and also after diluting.
- Do not leave the container open during application.



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- Store in a covered, cool, and dry place, avoid extreme temperatures.
- Apply in spaces with adequate ventilation.

### Warnings

- In case of ingestion, do not induce vomiting; rinse nose, mouth and throat and get medical attention.
- Keep out of reach of children.
- Do not smoke or eat during application.
- Avoid direct contact.
- Close the container well after each use.
- Flammable liquid, keep away from fire or heat sources.



ATTENTION, HARMFUL  
IF SWALLOWED



FLAMMABLE LIQUID

### Safety precautions

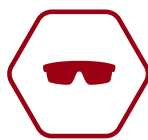
- Contains flammable substances, so sufficient ventilation is required and keep away from any source of fire.
- The rules and regulations in force at the place of application regarding Hygiene, Safety and Environment must be complied.
- In case of doubt about the application of this product, consult Energeia Fusion S.A de C.V. Technical Service.
- Use personal protective equipment, glasses, gloves, face mask and protective suit.



WEAR  
PROTECTIVE SUIT



USE GLOVES



WEAR GLASSES



WEAR FACE MASK

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### Storage

Store in a cool, dry place, avoid freezing conditions and extreme heat. This product contains flammable solvents, keep away from sources of ignition or flame, do not store outdoors.

### Waste management and environmental impact

Waste such as brushes, cheesecloth and other materials used to apply the product must be disposed together with the waste contaminated with chemical products generated during the product application.

### Expiration

The product can be stored for up to 6 months in its original container, hermetically sealed, under cover, in a cool and dry place, protected from sunlight.

### Legal Note

The information contained in this data sheet is provided in good faith and is valid only for the product to which reference is made.

The information is not intended to be exhaustive, and it is based on Energeia Fusion, S.A. de C.V., current knowledge, and experience, if the product is properly stored, handled, and applied under normal conditions and in accordance with the recommendations expressed here.

It is advisable to carry out the pertinent tests with the product to determine its suitability before its final application. In case of changes in parameters of application or if it is planned to use for a different application, consult Energeia Fusion Technical Service.

Energeia Fusion, S.A de C.V. is not responsible for any damage that may be caused by misuse of the product.

For more information contact [contact@graphenemex.com](mailto:contact@graphenemex.com)

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