Polyurethane Armored Floor Graphene Protech

Polyurethane developed with Graphene nanotechnology, offering the highest PEI* and highest COF* in the paint market. Its composition forms an excellent chemical and physical shield providing greater durability and less surface wear, even with high intensity traffic of people and machines. It has high resistance to weathering, offering excellent protection against UVA and UVB rays.

*According to ABNT NBR ISO 10545:2017 (PEI), ABNT NBR 16919/2020 (COF).
And it complies with ABNT NBR ISO 10545/2020 – Part 13 and ABNT NBR ISO 10545/2017 part 14.

RECOMMENDATIONS FOR USE

Recommended as finishing paint for floors with diverse bases, such as ceramic tiles, concrete, wood, and metal. This is because it gives great resistance combined with modern and pleasing aesthetics for the place of application.

It can also be recommended for facades, residential and industrial building walls, on monuments, bridges and viaducts, on exposed concrete substrates, stones or over areas that have already been painted, over layers in old coatings (tiles or ceramics).

BASIC PROPERTIES
INFORMATION FOR APPLICATION

Colors	2 line colors plus varnish
Finishing	Polished or anti slip
Solids by Mass	70% ± 2
Solids by volume	58% ± 2
VOC	420 g/L
Specific Weight at 25°C	1.10 g/cm³ (approximate value)
Flash Point	23 °C
Storage time	A compound 24 months
Toxicity	See the MSDS
Type of packing	A compound: 3.6L and 16L
Pot life of the mixture	Up to 4 hours after mixing components
Application method	Airless spray, conventional gun, roller and brush

Recommended number of coats

Apply 3 coats crosswise, or as needed, respecting an interval of 8 to 24 hours between coats.

Mixture ratio:	2 parts of A compound 1 part of B compound – Polished
Thickness per coat:	Wet film thickness: 50 to 70 µm Dry film thickness: 30 to 40 µm
Theoretical yield:	72 – 96m² finished/catalyzed can 17 – 23m² finished/catalyzed gallon
	Comments: Performance values may vary depending on application method, dilution, ambient, and surface conditions, and are calculated on the recommended dry layer thickness.
Dilution:	Dilute 15 to 20% with: Thinner 5002 for low temperatures. Thinner 5003 for temperatures up to 30°C. Thinner 5004 for temperatures above 30°C.

DRYING

Temperature	**25°C**
To Touch	3 hours
Handling	8 hours
Repainting	8 to 24 hours
Full cure	7 days

Notes: Se o tempo de repintura exceder 24 horas, deverá ser realizado o lixamento da superfície antes da próxima demão. If the maximum limit for repainting is exceeded, it will be necessary to sand the surface. Air Relative Humidity Condition: 55 to 80%. The pot life of the mixture varies with temperature (high temperatures - low pot life, low temperatures - high pot life), so we recommend keeping the catalyzed material in covered environments, avoiding direct sunlight on the product. When this is not possible, pay attention to the catalyzed amount, decreasing the prepared volume as much as possible. Because it is a product that cures by chemical reaction, it is normal for its cure to be delayed at low temperatures. A minimum temperature of 15°C must be guaranteed during curing.Do not clean with a dry cloth or abrasive material, as surface matting may occur.

DRY HEAT RESISTANCE

Continuous 90°C / Discontinuous 120°C. Organic coatings may change color, brightness and adhesion when exposed to temperatures above 60°C.

SURFACE PREPARATION - ABNT NBR 13.245 Standard

In any painting, surface preparation is one of the ways to guarantee an impeccable finish, resistance, and durability of the paint. Thus, the first step is to clean the surface, which must be dry, firm and dust-free, free of contaminants such as oils, salts, grease, fat, dust, etc., properly applied with a recommended primer. Loose or poorly adhered parts should be scraped and/or brushed.

On aged paint, sand superficially, leaving the surface shine-free, and remove loose particles. Before you start painting, observe the following instructions:

SURFACE TYPE	TREATMENT
Steel structures in general	Sand the surface eliminating rust or loose parts. Remove oily contaminants or dust with a cloth dampened with Angel Degreasing solution. Apply the PDA Classic Angel Epoxy Primer and wait for the interval time between coats of 16 to 24 hours for the application of the finishing paint.
Wood	Sand the surface removing splinters and/or loose parts. Remove dust. If necessary, apply the PDA Classic Angel Epoxy Primer (before white and gray N6.5) and wait for the interval time between coats of 16 to 24 hours to apply the finishing paint. Green woods should not be painted. We recommend applying on the 6 sides of the wood to prevent the entry of moisture.
Plaster or concrete floor (porous)	Wait for drying and curing for 30 days, presenting them very firm and free of lime. Apply a coat of PDA Classic Angel Epoxy Primer (before white and gray N6.5) and wait for the interval time between coats of 16 to 24 hours to apply the finishing paint.
Burnt cement or ready-mixed concrete	Wash with an acidic solution (ratio: 5% muriatic acid to 95% water by volume), leaving it to act until the surface appears rough and rough. After applying the acid solution, rinse with plenty of water and allow to dry (48 hours minimum). Apply a coat of Angel Epoxy Sealer, wait for a drying time of 24 hours to apply the finishing paint.
Glazed ceramic floors and tiles	For the colors gray N6.5 and White: Wash with acid solution (ratio: 5% muriatic acid to 95% water by volume), let it dry completely, apply a coat of Angel Epoxy Sealer, wait for the drying time of 24 hours and apply the finishing paint. For the varnish: Wash with an acid solution (ratio: 5% muriatic acid to 95% water by volume), allow to dry completely and apply the finishing paint.

Porcelain	Wash with an acidic solution (ratio: 5% muriatic acid to 95% water by volume), leaving it to act until the surface appears rough and rough. Let it dry completely, apply a coat of Angel Epoxy Sealer, wait for the drying time of 24 hours and apply the finishing paint.
Walls of Alvenaria	Wait for drying and curing for 30 days. If you wish to apply putty, it is mandatory to apply Angel Acrylic Putty and a coat of Classic PDA Epoxy Primer, wait for the interval time between coats of 16 to 24 hours for the application of the finishing paint.
Fat or fat spots	Wash with water and detergent, rinse and wait for drying.
Repainting	Note the general condition of the old painting. Being in good condition, test beforehand if the existing paint resists the solvent system of the PU Graphene Armored Floor, applying it to a small area. If there is no wrinkle, sand, remove the dust and apply. If there is wrinkle, remove the old paint. Always remove shine before application.

APPLICATION METHOD

The following specifications serve as a guide, and similar equipment may be used. Changes in pressures and nozzle sizes may be necessary to improve spray characteristics.

Before application, make sure that the equipment and its components are clean and in the best condition.

Purge the compressed air line to prevent paint contamination. After mixing the bicomponent products, if the application stops and its pot life is exceeded (the paint presents a variation in fluidity), it can no longer be diluted again for subsequent application.

Reinforce all sharp corners, cracks, and weld seams with a brush to avoid premature failure in these areas. When applying by spraying, make an overlap of 50% of each gun pass, to avoid leaving uncovered and unprotected areas, finishing with cross-over.

Airless gun:	
Use airless	60:1
Fluid pressure	1500 - 2000 psi
Hose	¼" diameter
Internal Nozzle	0.013" - 0.15"
Filter	Mesh 60
Conventional gun:	
Gun	JGA 502/3 Devilbiss
Fluid nozzle	FX
Air cover	704
Atomization pressure	60 – 65
psi Pressure in the tank	10 – 20

Brush: Recommended only for small area touch-ups or stripe coat (screws, nuts, weld seams, sharp corners, and touch-ups).

Roll: Use sheep's wool or synthetic wool rollers for low-pile (5.0mm) epoxy paints.

Note:

1- For brush or roller application, it may be necessary to apply in two or more passes to obtain a uniform layer and according to the recommended film thickness per coat.
2- Do not apply with relative humidity above 85%.
3- Only apply if the substrate temperature is at least 3°C above the dew point.
4- Do not let the catalyzed product remain in contact with the hoses, guns and equipment used in the application, because, for temperatures above those described in the pot-life table, the paint will present a variation in its fluidity and will harden, making cleaning difficult.
5- Thoroughly rinse all equipment used with cleaning solvent.

APPLICATION INSTRUCTIONS

Before starting any painting work you must always pay attention to the following procedure:

Sanding: sand the surface, removing loose parts and promoting greater adhesion for the product that will be applied afterwards.

Cleaning: Cleaning must be done with a cloth or a broom to remove dust from the surface and ensure adherence of the product that will be applied to the surface.

Sealing: Using primers standardizes the absorption of the surface, and significantly improves the performance of the product that will be applied.

Homogenizing: it is necessary to fully mix of all components, as well as the dispersion of pigments. Since the product will be stopped in stock, this operation is indispensable for the characteristics to remain unchanged.

Diluting: dilution must follow the recommended instruction for the product to offer excellent performance such as: coverage, yield, leveling, and application.

Applying: always pay attention to loose or poorly adhered parts of the substrate; in these cases, the recommendations for surface preparation must be followed. In the case of cutouts, always make the cutout first with a brush, and then proceed with the roller. Roller application should be done following the process of: applying in M, turning the application in the direction of W.

The product is supplied in two packages. A compound and B compound. Homogenize the content of each B compound means of mechanical or pneumatic stirring (A and B separately). Ensure that no sediment is trapped at the bottom of each package.

COMMENTS

To provide and ensure the quality of the products, it is essential to use our complete Anjo painting system (primers, fillers, thinners, and finishes) following the instructions contained on the packaging or in the technical bulletin.

Do not use different lots to resume paintings, as there may be a change in tone and finish.

The product's performance depends on the type of surface and the painting system to be used, the thickness applied, the application method and technique, the type and roughness of the substrate and environmental conditions, etc.

Usually with 2 or 3 coats you get a great result, but depending on the color type or condition of the substrate, you may need more coats.

The values found for the specific weight and drying tests (with the specified thickness) were obtained in the laboratory at a temperature of 25°C. With temperatures different from the one mentioned, the values established above tend to be different from those specified.

The instructions contained in this report are based on our experience and technical knowledge; however, some factors are beyond our control as a manufacturer, such as: surface preparation, application, working conditions, etc.

The use of solvents other than those specified without prior approval from Anjo may affect the performance of the product and void the product warranty.

We assume no responsibility for damage to property or persons caused by misuse of the information contained in this bulletin and of the products mentioned.

This newsletter is subject to change without notice.