

INTRODUCTION

Quick notes:

- Fast epoxy filler.
- Black color.
- Easy to sand.

PRO-FILL 303 is a two-component fast epoxy paste, in black (very dark grey) color, used as filler for carbon fiber re-enforced parts which have not been painted. Its color makes repairs unnoticeable. It is a fast curing compound, which can be sanded very easily in order to quickly produce a smooth finish and restore cosmetics and aero/hydrodynamics.

APPLICATION METHOD

Apply using filling / palette knife, batten or trowel.

RECOMMENDED USAGE

Quick notes:

Used to fill defects in carbon fiber parts.

To be used for repairs on CFRP parts. Examples include the following.

Filling of:

- Pinholes,
- infusion gaps,
- crevices created by UV,
- deeper (not hairline) scratches,
- damage resulting from contact.

Repairing of:

- Hydrofoils, filling of damaged edges and scratches.
- Any structure, component or part undergoing cosmetic re-finishing. Using PRO-FILL 303 will result in better levelling and less layers of clear coat.

FEATURES

- 1 to 1 by volume,
- very easy to fair,
- up to 6 mm application thickness,
- negligible shrinkage,
- black color makes repairs almost invisible.

LIMITATIONS

Quick notes:

Not for fillings which require flexion or movement accommodation.

- Not suitable for repairs on areas subject to high stresses, flexural or other, repairs of joints and structural repairs.
- Not suitable for repairs which require contact or scratch resistance. To some degree this can be overcome by re-enforcing with the fiber additive **AUX-201** and top coating with epoxy resin.
- For repairs on areas below the waterline, e.g. hulls, use as part of an integral system (primer, topcoat etc.) as with standard fillers.
- Not suitable for use as an in-mold filler due to its high speed of curing.

PRODUCT DATA

| PRO-FILL 303: Properties | |
|-----------------------------------------------|------------------------|
| Mix ratio (by volume) | 1:1 |
| Colour of mixture | black (very dark grey) |
| Volume solids, % | 100 |
| Specific weight (of mixture), kg/l | 1.05 |
| Shelf life (in controlled environment), years | 2 |
| Packaging, comp. A+B, ml | 250 |

TECHNICAL DATA SHEET

CURING SPEED

| PRO-FILL 303: Curing speed | | | |
|----------------------------|-------|-------|-------|
| | 10 °C | 20 °C | 30 °C |
| Pot life, mins | 60 | 30 | 15 |
| Sandable, hrs | 5.0 | 3.0 | 1.5 |

[Determined in controlled laboratory conditions. To be used as a guide only.]

PRO-FILL 303 will continue to cure for 2-5 days. This does not prevent you from completing the repair.

RECOAT AND OVERCOAT TIMES

Sanding PRO-FILL 303 with 220-400 grit before overcoating is best practice. For small repairs or when the required application thickness is not achieved in one go, use the following minimum times for overcoating without sanding.

| PRO-FILL 303: Minimum overcoat times | | | |
|-------------------------------------------------------------------------|-------|-------|-------|
| | 10 °C | 20 °C | 30 °C |
| Minimum time before overcoating (filled or primed) without sanding, hrs | 3.5 | 1.5 | 0.5 |

[Determined in controlled laboratory conditions. To be used as a guide only.]

PREPARATION AND APPLICATION

Quick notes:

- Substrate: Fair, clean, mask.
- Mixing: 1:1 by volume, add AUX 201 if needed, work to a uniform mix.

Both preparation and application should be carried out in optimal conditions, namely temperature in the range of 10-35 °C (ambient, substrate and product) and normal humidity levels.

The application surface must be clean, free of dust, salt, water, grease, oil, wax, silicone, rust and other contaminants deposited over time or during the repair process.

For surfaces free of grease and oils, the recommended way of cleaning it is by dry cloth assisted by vacuum dust extractor or compressed air (free of compressor oils). Use a large cloth, apply very lightly and change sides continuously so as to remove dust instead of pressing it on the substrate. Low grade grinding will help with more persistent residues and improve adhesion. Avoid using wet or waxed tissues. As an alternative, use **PRO-CLEAN IPA**, the fast drying, residue free, isopropyl alcohol solvent.

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In the case of oily / greasy substrates, use **PRO-CLEAN X**, the xylene based cleaner. Ensure that no residues remain, either from the initial contaminants or from the cleaner.

Do not apply on areas lacking cohesion. Cracks, fraying fibers, loose plies and other unsound parts of the application surface must be removed/sanded off and, if needed, sealed using **PRO-EPOX 101** or any other resin system.

Use masking tape to confine the application area.

Mix 1 to 1 by volume. Keep mixing until a uniform consistency has emerged. In hot weather, you may spread out the mix on a tray in order to prolong its pot life.

When filling larger gaps, typically larger than 1 cm in width and depth, you may add the fiber additive **AUX-201** in order to improve strength. Gradually add AUX-201 to the mix. As you do so the mix will become thicker every time you add more fibers. Stop adding before the mix becomes too thick and unworkable. (As a test, you may add fibers to a portion of your mix to see how it is affected before adding to the total.) Continue working the mix with the batten for a few minutes to allow for better wetting of the fibers.

Apply with filling batten in more than one direction.

You are advised to first test the product, surface preparation and ambient conditions on a non-critical part of the application surface before proceeding with the full repair.

FAIRING

Quick notes:

- Start with 400 (or less) dry and move up.
- Light pressure only.
- From 1,000 and up, move to wet.
- Look for grey dust.

PRO-FILL 303 is formulated to be very easy to fair, much easier than the epoxy surrounding the repair, in order to easily level the repair area with its surroundings.

We recommend starting the fairing process with a minimum of 400 grade, dry. Start slowly and take care not to fair outside the repair. Do not hesitate to move up in grade as you progress. From grade 1,000 onwards we recommend moving to wet.

Fairing PRO-FILL 303 produces grey dust. As long as you are seeing grey, it is probably a good hint that you are fairing the filler. Fairing epoxy usually produces white dust, fairing carbon fiber produces black dust.

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PACKAGING

- 200 ml (2x 100 ml aluminium tube),
- 1 lt (2x 0.5 lt tin cans).

STORAGE AND SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container. Store away from excessive heat and humidity.

SAFETY

Apply in well-ventilated spaces. Follow personal safety guidelines relating to epoxy products, including the use of proper mask and protective clothing. Avoid physical contact with the uncured substances.

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