

TECHNICAL DATA SHEET

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

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.

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Limitations

- 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/lt	1.05
Shelf life (in controlled environment), years	2
Packaging, comp. A+B, ml	250

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.

Re-coat & 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.

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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 & application

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 dry surfaces, i.e. no water, oils, grease etc., the recommended way of cleaning 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. You may also sand the surface to help you remove more persistent residues and improve adhesion. Avoid using wet or waxed tissues. As an alternative, if necessary, use PRO-CLEAN IPA, the fast drying, residue free, isopropyl alcohol solvent.

In the case of oily / greasy substrates, using special cleaners containing solvents and/or chemicals will be necessary. It is important to ensure that no residues remain, either from the initial contaminants or from the cleaners.

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 equal volumes of each component 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

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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

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 fibers produces black dust.

Packaging

250 ml (total volume of both components).

Storage & shelf life

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

Quality control

PRO-FILL 303 is produced under ISO 9001/14001/45001.

PRO-FILL 303

FAST EPOXY FILLER FOR CFRP PARTS



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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.

The information provided in this Technical Data Sheet is to be used as a guideline only. It represents no warranty of any kind. None of the information, instructions and specifications, published by Navic, in writing or in any other form, are to be considered as binding in any way or towards any parties, nor do they relieve interested parties from subjecting the product to an adequate examination of its suitability. In no case will Navic be held responsible for any damage of any nature resulting from the use of or reliance upon information or the product to which information refers. Navic reserves the right to change at any time the properties of its products. Please refer to the latest version of our Technical Data Sheet available on our website, navic-chemicals.com.