

CARBON FIBER CLEARCOAT

- TOUGH & HARD WEARING
- FUEL & CHEMICAL RESISTANT
- PINHOLE FILLING
- UV SHIELDING

Gloss Level	89 ±4 gloss units @ 20° angle
VOC Value	673g/l
Recommended Temp	18 - 25°C (can & room temperature)
Coverage	0.5 - 0.75m ² @ 30-50 µm dry film
Flash-off Time	10 min (between coats)
Touch Dry	60 min (@ 20°C)
Full Cure (Polishable)	24 hr @ 20°C or/ 60 min @ 20°C → 60min @ 60°C
Working Time	48 hr at 20°C (once activated)
Shelf life	36 months (unactivated)

DESCRIPTION

FANTOM CLEAR™ CX is a 2k acrylic clearcoat optimised for the clearcoating or refinishing of carbon fibre parts.

The resulting coating is UV-stable and provides UV protection to the underlying carbon fibre. Once fully cured, FANTOM CLEAR™ CX is scratch-resistant and hard-wearing, with excellent resistance to chemicals and fuel.

PART PREPARATION

These instruction steps apply to new carbon fibre parts with a typical standard of surface finish which may include some minor pits or pinholes. For parts with heavy pinholing, larger voids, or old parts with deteriorated clearcoat or gelcoat, follow the steps described in the Pre-Preparation & Damage Repair section first.

Any pinholes or voids large enough to be visible before sanding should be filled with clear epoxy resin, such as XCR™ Epoxy Coating Resin, or suitable cyanoacrylate adhesive and flatted smooth before proceeding.

1. Thoroughly key the entire surface with 400 grit abrasive paper.
2. Wash thoroughly with soapy water (use dish washing liquid).
3. Rinse thoroughly with plenty of clean water.
4. Dry fully using a hair dryer or low temperature oven, or leave for several hours.

SPRAY AREA PREPARATION

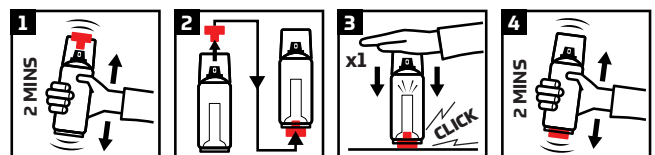
- Entire vicinity should be as free from dust and dirt as possible.
- Wetting the floor in the work area can help to minimise dust.
- Recommended conditions are 18 – 25°C ambient temperature and 40 – 60% relative humidity.

HEALTH & SAFETY

- See safety datasheet for full safety information.
- Spray paints are hazardous to health and must only be used away from living spaces or unprotected people.
- Ensure adequate ventilation. An actively ventilated, filtered work area is optimum.
- Always wear a suitable respirator with combination filter (A1P2 minimum).
- Wear suitable hand and eye protection at all times.

2K CAN ACTIVATION

Once the can is activated, it must be used within 48hrs (at 20°C). Do not activate it until you are ready to start using.



1. Shake the can thoroughly for 2 minutes (from when the mixing balls are heard).
2. Remove the plastic button from the cap and fit it to the pin on the underside of the can.
3. Place the can upright on a hard surface (plastic button on the bottom) and press the can down firmly until the button clicks to activate.
4. After activation, shake can thoroughly for a further 2 minutes.

GENERAL SPRAYING TECHNIQUE

- Always start and finish spraying off the part.
- Maintain a consistent speed.
- Vary spraying angle to ensure even coverage on all faces.
- After each use, invert the can and spray for a few seconds to clear the nozzle.

APPLICATION PROCESS

MAIN APPLICATION

1. DUST COAT

Apply a light 'dust coat' using the minimum paint necessary to cover the part's surface, using multiple passes from 30cm distance, at 1m/second.

2. Wait 5 minutes.

3. FULL COAT #1

Apply a full coat using multiple passes at a distance of 20cm, at 50cm/second, varying the spray angle as necessary to ensure even coverage of all faces. If paint begins to run or pool, the layer is too thick.

4. Wait 15 minutes.

5. FULL COAT #2

Repeat the full coat procedure.

6. FULL CURE

FANTOM CLEAR™ CX can be cured at room temperature but for best performance, and reduced processing time, an oven cure is highly recommended; as follows:

OVEN CURE:

1. Allow the paint to become touch dry at room temperature (~60 mins at 20°C) then oven cure for 60 mins at 60°C.

ROOM TEMPERATURE CURE:

Leave the paint for at least 24hrs at 20°C to reach full cure.

At this stage, the part will have a basic 'paint finish' which can be left and used 'as-is' or flatted to remove any texture or dimples and painted with a finishing coat to achieve the highest standard of finish (see next section).

OPTIONAL FINISHING COAT

Optional steps to remove any texture or dimples:

1. Flat using P400 abrasive pad/paper so that no low spots remain. Dry sanding can be advantageous because remaining low spots will appear dark and glossy.
2. Wash thoroughly with soapy water.
3. Rinse thoroughly with clean water.
4. Dry fully using a hair dryer / low temperature oven or leave for several hours.
5. Apply a single full coat of paint using the FULL COAT #1 procedure listed above from above.
6. Follow the FULL CURE procedure from above.

At this stage, the part should have a high standard 'paint finish'. If required, the paint can be flatted and polished to a mirror finish; see next section.

OPTIONAL FLATTING & POLISHING

When a 'mirror finish' paint flatness is required, FANTOM CLEAR™ CX can be flatted and polished like any professional paint finish by flattening with P800-P2000 abrasive pads and then polishing using a power polisher and a suitable polishing compound.

PRE-PREPARATION & DAMAGE REPAIR

Parts with heavy pinholing or surface voids, or old parts with fading or peeling clearcoat should be properly prepared prior to painting with FANTOM CLEAR™. Properly preparing the substrate is always faster in the long run than attempting to overcome heavy pinholing or voids with clearcoat alone.

Follow the relevant instructions below to correct surface defects then follow the main instructions.

OCCASIONAL PINHOLES & PITS

Occasional pinholes and pits that can be seen prior to sanding should be spot-filled with a suitable UV-stable epoxy resin such as Easy Composites' XCR™ Epoxy Coating Resin, or for an instant turnaround, a suitable UV-curing cyanoacrylate adhesive.

Once cured, spot repairs should be sanded flush using P400 abrasive.

HEAVY PINHOLING

Heavily pinholed surfaces should be filled using a brush application of a suitable UV stable epoxy coating resin such as XCR™. Once cured, the surface should be flatted using P240 grit abrasive paper or pads.

LARGER SURFACE VOIDS

Large surface voids should be repaired by filling with a suitable UV-stable clear epoxy resin, such as XCR™ and once cured, sanded flush to at least P240 grit.

OLD PARTS WITH DETERIORATED GELCOAT OR CLEARCOAT

Old carbon fibre parts with cracked, faded or peeling lacquer or gelcoat should have all the gelcoat or clearcoat removed using abrasive paper/pads, either by hand or using a dual action (DA) sander. Typically, P240 grit is recommended.

All traces of the original gelcoat or clearcoat should be removed but care should be taken to not sand down into the carbon fibre itself as doing so can weaken the component and affect the visual appearance of the carbon fibre.

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FANTOM CLEAR™

www.fantomclear.com

contact@fantomclear.com

FANTOM CLEAR™ paints are distributed in the UK and European Union by Easy Composites:

Easy Composites Ltd

39 Park Hall Business Village

Stoke on Trent

ST3 5XA

United Kingdom

Easy Composites EU B.V.

Beneuxbaan 16

5121 DC, Rijen

Netherlands

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