

Technical Data Sheet.

Permacron® Diamond Clear Coat 8400

Permacron® Diamond Clear Coat 8400 is used to refinish vehicles which were originally coated with OEM clear coats with higher scratch resistance.

Substrate

– Medium Solid quality

Application

– High mechanical and chemical resistance

Drying

– Easy to apply

Blending-in / Polishing

– Good, long-lasting gloss

Data

– Easy to polish

Storage

– For conventional and waterborne base coat systems

For professional use only!



Substrate



Suitable base coats:

Permacron® Base Coat Series 293/295
 Permahyd® Base Coat Series 280/285
 (see VR Technical Data Sheet No. 970.10, 970.13, 100.0
 and 100.1)

Application



Mixing ratio:






2:1 by volume with



Permacron® Diamond Hardener 3384

Pot life:

Ready for use 2 1/2 hours at +20°C

Method of application		High pressure spraying / Compliant	HVLP
		Gravity feed	Gravity feed
			
	Application viscosity at +20°C material temperature	DIN 53211 4 mm: 17–18 seconds ISO 4 mm: 41–45 seconds	
	Reducer at +20°C material temperature	none	
	Spray nozzle*	1.3–1.4 mm	1.3–1.4 mm
	Spray pressure*	2–4 bar	—
	Internal nozzle pressure	—	0.7 bar
	Number of coats	2 coats with 10 minutes flash-off between coats	
	Recommended film thickness	40–60 µm dry film thickness	

* see manufacture instructions

Drying



Force drying:



Flash-off: 10–15 minutes



Drying time and temperature: 35–40 minutes at +65–70°C metal temperature

Infrared drying:



Flash-off: 10–15 minutes



Drying time and temperature: dark colours: 20 minutes at 50% power

light colours: 20 minutes at full power

Distance to dryer: 80 cm

Special note: This clear coat may not be air dried.

Blending-in / Polishing



Special notes: Do not blend in areas which are directly visible (no horizontal areas such as hood or roof etc.).

Preparation:



Carefully sand the entire blend-in area with an excentric sander and 3M Trizact P3000 Fine Finishing Disc 50076 150mm (or 75mm for small areas). Before spraying, small dust inclusions may be sanded with Trizact microfine sanding disc.

Clear Coat:

Mix Permacron® Diamond Clear Coat 8400 according to TDS.

a. Spray the repair area with ready-to-spray clear coat (1 or 2 coats depending on the area)

b. Mix ready-to-spray clear coat 1:1 with Permacron® Speed Blender 1035 and apply to the fade-out area.

c. Fade out pure Permacron® Speed Blender 1035 into the adjacent old paintwork. Remain strictly within the sanded area!

Using pure Permacron® Speed Blender 1035 may lead to wetting defects.

Drying



Low bake for 35–40 minutes at +65-70°C metal temperature followed by IR (short-wave) at least 12 minutes at 100% power

Further steps:



After cooling

Sand the entire area with excentric sander and 3M Trizact P3000 Fine Finishing Disc 50076 150mm. Pay special attention to the fade-out area (see "Clear Coat" b).

Level the transition visible after sanding with 3M Perfect-it III Extra Fine Compound. Adequate sanding must be guaranteed.

Polishing:



a. Polish using a polishing machine (medium speed) and 3M Buffing Pad 01927. Pour a little 3M Perfect-it III Extra Fine Compound onto the buffing pad. Follow the direction of rotation of the machine, and do not polish against the edge.

b. Polish again (medium to high speed) using 3M Polishing Foam orange 2362 [for better cooling]. Pour a little 3M Perfect-it III Extra Fine Compound onto the polishing foam.

c. Wipe off any wax and oil with 3M Finish Control Spray 55535 or silicone remover to find out if it is necessary to work on the surface again.*

d. To seal the cleaned area, polish again using an excenter polishing machine and 3M Polishing Foam orange 2362. Pour a little 3M Perfect-it III Extra Fine Compound onto the polishing foam.

* If the finish is still not satisfactory, the entire polishing process may be repeated if necessary.

Data



Viscosity as supplied:	19–20 sec.	
Flash point:	above +23°C	
Solids content: (without reducer)	base material 50.1% by wt. 43.3% by vol.	mixed 53.1% by wt. 46.0% by vol.
Specific weight:	0.99 g/cm ³	1.00 g/cm ³
VOC content: (ready for use)		470 g/l
Coverage*:		9.0 m ² /l at 50 µm dry film thickness

* The coverage was calculated on the basis of the recommended dry film thickness and the solids content by volume of the mixture (without reducer). No allowance was made for wastage during application.

Storage



Guaranteed shelf life:	Clear Coat and Hardener	6 months in sealed original containers
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