

Substrates and Preparation

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Description

Product data sheets specify suitable substrates for related products. In this document, a range of substrates are mentioned that sometimes require dedicated preparation and sanding.
All sanding grits are related to dry sanding unless explicitly otherwise mentioned.

The indicated sanding steps in this document are based on:
 P80 - P120 - P220 - P320 - P400 - P500.
 Comparative sanding line:
 P80 - P180 - P280 - P360 - P400.

Suitable substrates

Existing finishes	All Sikkens polyester bodyfiller
Steel	All Sikkens Washprimers
Aluminum (Anodized Aluminum)	Sikkens Polysurfacer
Galvanized steel	All Sikkens surfacers (fillers)
OEM Electro coat	
Polyester laminates (fiberglass), gel coat	

Suitable substrates and preparation

Existing finishes:

Clean and degrease the surface thoroughly prior to any surfacer application.
Pre-clean the surface with warm water and detergent, rinse sufficiently with clean water. If bare polyester bodyfiller is exposed, avoid contact with water (e.g. waterborne degreaser)

Prior to the application of a sanding surfacer, dry sand the surface with P220 sanding grit. In the case of a wet on wet (non-sanding) application, finish by dry sanding with grit P320 and thoroughly degrease the surface prior to the application of surfacer.

Wet sanding can be done by using P1000 as final sanding grit. Preceding sanding steps can be executed with a coarser sanding grit but need to be succeeded by finer steps not larger than 200 in grit size.

Steel, Aluminum, Galvanized steel;

Thoroughly clean and degrease the surface. Prior to the application of a sanding surfacer, dry sand the surface with P220 sanding grit. In the case of a wet on wet (non-sanding/sealer) application, finish by dry sanding using P320 grit, and thoroughly degrease the surface prior to the application of surfacer.

*For systems that require the highest standards i.e warranty apply one single coat of Washprimer 1K CF to bare steel surfaces prior to any surfacer application.
 In the case of Aluminum or Galvanized substrates, application of Washprimer 1K CF is **necessary** to secure adhesion, allow a minimum flash-off time of 15 minutes at 20°C of the Washprimers prior to the application of any surfacer.*

Anodized Aluminum

Natural oxidation of the aluminum is accelerated by an electro-chemical process which creates an aluminum oxide layer on top of the aluminum for optimum protection against environmental influences. To paint these types of aluminum, this layer **must** be removed completely (sanding or blasting).
No primer will give sufficient adhesion on top of any anodized aluminum oxide layer.

OEM Electro coat;

After thoroughly cleaning and degreasing of the surface, direct application over rigid OEM Electro coated parts is possible. Sanding is basically not required but in the case of doubt (securing optimum adhesion), the surface may be dry sanded using a P320 or a fine (grey) scuffing pad.
 Thoroughly clean the surface prior to the application of surfacer (wet-on-wet / non sanding / sealer).

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Suitable substrates and preparation (continued)

Polyester bodyfiller and Polysurfacer;

Cured polyester should be sanded according a recommended sanding step system. (Never exceed a larger sanding step then 100 in grit size. Initially starting with P120 (optional P80), followed by P120. As final sanding step use P220 prior to surfacer application.

- Use a guide coat between each sanding step to visualize the sanding scratches created.
- Finer sanding is possible.

Sanding scratches in the existing finish surrounding the polyester area need to be removed. This is done by using P220 followed by P320 to create a uniform featheredge. This is also the final sanding step in the case of application on a larger area (total panel).

In the case of spot repairs, finish the outer area of the spot with P400 as the final sanding step to reduce the risk of contour mapping. Thoroughly degrease the surface prior to the application of surfacer.

Polyester, gel coated laminates (fiberglass);

Pre-clean the surface using warm water and detergent, then rinse sufficiently with clean water.

Dry and clean the surface prior to dry sanding with P220 followed by grit P320.

Thoroughly degrease the surface prior to the application of surfacer.

- The gel coat of the polyester laminate will in almost all circumstances contain very small pinholes that are difficult to detect. Therefore it is strongly recommended to cover this surface with a sanding surfacer instead of a wet-on-wet or direct topcoat application.
- If the gel coat is broken or has been sanded through, additional bodyfiller application might be necessary to fill and seal off any glass strands in the fiberglass.

Sikkens Washprimer EM CF

After thoroughly cleaning, degreasing and sanding, Washprimer EM CF can be applied over steel, galvanized steel and aluminum for adhesion promotion and corrosion protection.

- Allow for a 30 minutes at 70°F (20°C) flash off prior to the application of any surfacer.
- In the case of direct topcoat application, sand the Washprimer EM CF slightly after allowing for a 45 minutes flash off at 70°F (20°C).

Sikkens Washprimer 1K CF

After thoroughly cleaning, degreasing and sanding, Washprimer 1 K CF can be applied over steel, galvanized steel and aluminum for optimum adhesion and corrosion protection.

- Allow for a minimum of 15 minutes flash off at 70°F (20°C) prior to the application of any surfacer.
- Direct topcoat (in particular basecoat) application is **not** possible

Suitable substrates and preparation (continued)

Surfacers (fillers)

After complete through hardening, the surfacer can be pre-sanded, by block sanding, with P320, followed with P400.

Final sanding step should be executed using the grit specified for the desired topcoat.

Wet pre-sanding can be done using P600 grit, followed by P800 and preferably P1000 as final step.

After sanding, thoroughly clean and degrease the surface prior to topcoat application.

Plastic car parts: For detailed information on plastic car parts see TDS S8.06.03 (a-b-c)

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