

Working guideline for high gloss opaque coloured coatings

Achieving a high gloss finish requires special procedures. We recommend the following approach for achieving a high gloss finishing with opaque coloured coatings:

Possible substrates:

- a) Film-coated boards
- b) MDF boards

Basic sanding:

Basic sanding should be carried out as follows:

Film coating: grit size 220-240

MDF board: polishing/smooth sanding grit size 180 – 220

Insulation:

ADLER Legnopur G50 26215 is used to insulate the MDF board and prime the film. Alternatively, ADLER PUR-Ecofill Weiß 25501 can be applied directly on the mentioned substrates (refer technical data sheet).

Smooth sanding:

Smooth sanding is carried out after at least 5 hours drying at room temperature:

- using orbital sander
- grit size 280
- 2.5 - 3 mm orbit at ca. 10,000 – 12,000 rpm

Filler application:

Both substrates should be spray filled using ADLER PUR-Spritzfüller 25513 ff or ADLER PUR-Ecofill Weiß 25501..

ADLER PUR-Spritzfüller Weiß 25515 and ADLER PUR-Ecofill Weiß 25501 can be tinted with up to 10 % ADLER Pigmpur to match the filler layer to the coloured topcoat.

Film coating:

1 x ADLER PUR-Spritzfüller 25513 ff or 1 x ADLER PUR-Ecofill Weiß 25501, drying overnight at room temperature.

MDF board:

1 x ADLER PUR-Spritzfüller 25513 ff or 1 x ADLER PUR-Ecofill Weiß 25501.
Intermediate sanding is carried out after drying overnight at room temperature:

- using orbital sander
- grit size 280
- 2.5 - 3 mm orbit at ca. 10,000 – 12,000 rpm.

MDF boards are given a **second application of filler** using ADLER PUR-Spritzfüller 25513 ff or 1 x ADLER PUR-Ecofill 25501. Drying overnight at room temperature is recommended to avoid sinkage of the filler layer.

The final intermediate sanding before applying paint is carried out as following:

- using orbital sander
- in steps grit size 280 – 360 – 500
- 2.5 - 3 mm orbit
- 10,000 – 12,000 rpm.

Ensure that surfaces are carefully and thoroughly sanded, i.e. the underlying paint surface is well sanded down. It is essential not to sand through the layer however.

Sanding dust must be completely removed to achieve a high gloss surface: blow with compressed air, then wipe surfaces down with tack rag. This should be done shortly before applying the top coat so any dust from the surrounding atmosphere is also removed.

Application coloured coating:

The desired shade of ADLER Pigmopur G50 24005 ff is applied.

In alternative there can be applied 2 coats of ADLER Pigmopur Gloss 2408 in the desired colour shade. The drying time in between the two layers is at least 2 hours until a maximum of 8 hours without intermediate sanding. It is not necessary to apply a gloss finish. Polishing or Buffing are done as described on page 3 and 4.

Intermediate drying time:

The topcoat is applied after at least 2 hours and a maximum of 24 hours **without intermediate sanding**.

Topcoat

There are 2 options available for the top coat, using different coating systems:

Option 1:	Aduro PUR-Glanzlack	2632000100
Option 2:	ADLER Pigmotop G100	25370

Option 1

Apply 2 coats of Aduro PUR-Glanzlack 2632000100 for high gloss surfaces with very good body and excellent gloss. An intermediate drying time of approx. 3 hours should be observed without sanding between coats.

Aduro PUR-Glanzlack contains an adequate amount of light stabiliser.

Option 2

Apply 2 coats of ADLER Pigmotop G100 25370 for high gloss surfaces with good body and gloss and rapid drying. An intermediate drying time of ca. 3 hours should be observed without sanding between coats.

Drying time before polishing or buffing:

After a minimum drying time of 3 days surfaces coated with ADLER Pigmotop G100 or ADLER PUR-Glanzack 25283 can be sanded and polished or buffed as required.

A) Sanding and polishing method:

The polishing method requires initial sanding, wet or dry

- using oscillating sander (speed without load ca. 20,000 /min) or orbital sander
- oscillation 2.5 mm
- grit size 1000 / 1500 / 3000
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partly also by hand;

Water for wet sanding:

The water used for wet sanding, containing a few drops of wetting agent such as Pril (Fa. Henkel Austria) or soap, can be applied with spray bottle.

After carefully removing the water or dust the mat surfaces can be polished out in several steps:

Preliminary polishing is carried out using a coarse polishing paste. Preliminary polishing is carried out using

- a rotary polisher
- lamb's wool (ca. 1500 rpm).

Ensure the polishing paste is carefully removed before the next step.

Final polishing is carried out using a fine polishing paste:

- rotary polisher
- ca. 1,500 rpm
- foam disc

Residual polishing paste must be completely removed before the final step.

Applying a protective wax

to increase scratch resistance on the polished high gloss surface, using a microfibre cloth.

To avoid scratch marks due to dried lumps, do not allow the protective wax to dry on the surface. Wipe off any excess protective wax with a microfibre cloth.

B) Buffing method:

The buffing method also requires sanding, wet or dry (see above). Further steps are as following:

Preliminary polishing using the buffing method is carried out using a belt sander:

- wet belt sander with *ADLER sanding liquid 80011*
- apply coarse buffing wax by pressing.

Buffing is carried out at low speed (max. 11 m/sec) and only slight pressure to avoid excessive heating of the surface.

Final polishing is carried out using a fine polishing paste:

- using an angle sander
- ca. 3,000 rpm – backing pad with soft cover
- using a foam disc

Ensure residual polishing paste is completely removed before final step.

Applying a protective wax

to increase scratch resistance on the polished high gloss surface, using a microfibre cloth.

To avoid scratch marks due to dried lumps, do not allow the protective wax to dry on the surface. Wipe off any excess protective wax with a microfibre cloth.

Please note the advice in the Technical Data Sheets and Safety Data Sheets of products described or alternative products you have chosen.

We recommend testing the whole system on the original substrate.

Manufacturer Information for Materials and Equipment

The products described are a selection of those on the market. All materials and grindings materials as well as polishing accessories are available at ADLER. Comparable products from other manufacturers can obviously be used but must be checked for suitability.

Materials:			
Function	Product description	Manufacturer / Distributor	Other information
Coarse polishing paste, silicone free	3M Perfect-it III Schleifpaste Plus Available at ADLER with order number 9697701	3M / ADLER	Packing size 1 l
Fine polishing paste, silicone free	3M Extrafine Schleifpaste Available at ADLER with order number 9697801	3M / ADLER	Packing size 1 l
Protective wax	3M Polish Rosa Hochleistungswachs (high performance wax) Available at ADLER with order number 9697601	3M / ADLER	Packing size 1 l
Protective wax	3M Microfasertuch Grün (green cloth in microfiber) Available at ADLER with order number 9697501	3M / ADLER	36 x 32 cm Packing size 5 pieces

Machinery:			
Function	Product description	Manufacturer / Distributor	Other information
Orbital sander	3M Exzentrerschleifer Elite	3M Fa. Thalhammer Farben GesmbH & Co KG Theresienthalstraße 3, A-4810 Gmunden <i>or:</i> Farben Hübner Villacher Straße 146 A-9800 Spittal an der Drau	Power consumption: 150 W Range: 7.000 - 10.000 rpm; Grinding pass: 2 mm; Grinding disk-Ø: 125 bzw. 150 mm
Orbital sander	Festool ETS 150/3 EQ	Festool Österreich GmbH Schloss Glanegg 2 A-5082 Grödig	Power consumption: 310 W Range: 8,000 - 21,000 rpm; Grinding pass: 3 mm; Grinding disk Ø: 150 mm
Polishing machine	3M Poliermaschine	3M Fa. Thalhammer Farben GesmbH & Co KG Theresienthalstraße 3, A-4810 Gmunden <i>or:</i> Farben Hübner Villacher Straße 146 A-9800 Spittal an der Drau	Power consumption: 1.100 W Drive: 700-1.870 rpm; Polishing wheel-Ø: 200 mm
Rotary polisher	Festool Shinex RAP 150.03 E	Festool Österreich GmbH Schloss Glanegg 2 A-5082 Grödig	Power consumption: 1.200 W Drive: 600-1.400 rpm; Pad Ø: 150 mm
Angle sander for polishing	Makita Elektronik Rotary Polisher/ Sander 9227 CB	Makita Werkzeug GmbH, Kolpingstr. 13 A-1232 Vienna, Austria	Speed without load: 600 – 3,000 rpm Power consumption: 1,200 W Grinding disk diameter: 180 mm

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Angle sander for polishing	Dynabrade Model 53460	Dynabrade Austrian agent: Maringer Spezialwerkzeuge, A-8720 Knittelfeld, Austria	3,200 rpm; air operated for small surfaces and edges
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Equipment			
Function	Product description	Manufacturer / Distributor	Other information
Polishing pad grit size 1000	3M Hookit flexible polishing pad Available at ADLER with order number 968400030017	3M / ADLER	With hook-and-loop backup Ø = 150 mm Packing size: 25 pieces For wet/dry sanding
Polishing pad grit size 1500	3M Hookit flexible polishing pad Available at ADLER with order number 968400030117	3M / ADLER	With hook-and-loop backup Ø = 150 mm Packing size: 25 pieces For wet/dry sanding
Polishing pad grit size 3000	3M Trizact polishing pad Available at ADLER with order number 9697101	3M / ADLER	With hook-and-loop backup Ø = 150 mm Packing size: 25 pieces For wet sanding
Film disk roll	3M Trizact film disk roll Available at ADLER with order number 9697901	3M / ADLER	Adhesive dots grit size 3000 on sheet Ø = 32 mm 100 dots / sheet Packing size: 1 sheet
Natural wool	3M Perfect-it III Polishing wool Available at ADLER with order number 9697201	3M / ADLER	With hook-and-loop backup machine polishing Ø = 150 mm Packing size: 2 pieces
Felt pad	3M Finesse-it Felt pad Available at ADLER with order number 9697301	3M / ADLER	With hook-and-loop backup machine polishing Ø = 127 mm Packing size: 5 pieces
Napped foam polishing pad	3M Extra Life Polishing pad Available at ADLER with order number 9697401	3M / ADLER	With hook-and-loop backup machine processing of the grinding pastes Ø = 133 mm Packing size: 2 pieces