

TECHNICAL DATA SHEET

MARBOCOTE HP2002 Tool Sealer

Product Description:

Marbocote® HP2002 Tool Sealer is designed to seal all types of highly porous substrates including epoxy and polyurethane tooling board, MDF, gelcoated and non-gelcoated polyester and epoxy composite moulds. Marbocote HP2002 Tool Sealer is a high solids moisture cure system in a hydrocarbon/alcohol solvent blend that gives a high gloss finish to the surface. Marbocote HP2002 Tool Sealer is applied by a simple wipe-on or spray-on technique; there is no need for rubbing or polishing. The fast-dry formulation also acts as a mould primer for semi-permanent mould release agents (such as Marbocote HP7) and can be used to re-condition/enhance the gloss of old moulds.

Product Benefits:

- High Sealing Capability
- High gloss without polishing
- Easy, quick application
- Fast cure
- Non-contaminating
- No aromatic solvents
- Low odour

Physical Properties:

Appearance	-	Clear, colourless liquid
Odour	-	Hydrocarbon/alcohol
Specific Gravity	-	0.780 g/cc
Flash Point	-	<21°C
Solvents	-	Aliphatic Hydrocarbon Diisobutyl ketone, methanol,
Coverage	-	20 - 25m ² / L
Shelf life	-	12 months
Storage	-	Flammable store (see Safety Data Sheet for further details).

Caution:

The polymeric resin used in Marbocote HP2002 Tool Sealer reacts with moisture. Please ensure can is resealed immediately after use.

Do not mix with other products or solvents. Application of the HP2002 should be conducted in a dust free area with good ventilation.

Application:

Please read Safety Data Sheet before use. Before applying the HP2002 Tool Sealer, clean the mould or tool surface with Marbocote Mould Cleaner

to remove traces of dust, dirt, oils or release agent. The mould must be clean and dry before use. Mould cleaning and sealing should be performed in a well-ventilated area.

For a superior gloss finish, wipe application is preferred. For the best finish, it is important that the coating procedure be performed in a dust free environment and using lint free cloths

Wipe Application:

1. Apply Marbocote HP2002 Tool Sealer to clean, dry cloth. The choice of cloth is important; as the HP2002 resin reacts with water, the cloth must be dry. A smooth, soft cloth with a high synthetic content, such as Kimberley-Clark® Wypall® X60, is ideal. Fold the cloth so that a smooth, flat surface is presented to the mould surface
2. Wipe wet cloth over mould surface covering an area of approximately 0.2m². Vigorous rubbing or polishing is not required. Frequently re-wet the cloth to ensure complete wet film is formed on substrate surface.
3. Repeat steps 1 and 2 on the adjacent area, frequently reapplying the product to the cloth. Take care to minimize the overlap area where previously applied product has dried but not cured sufficiently.
4. Repeat until mould is completely coated. Change the cloth if it becomes dirty.
5. When applying to relatively non-porous surfaces (such as carbon composite), allow **at least 20 minutes** at room temperature between coats. For highly porous surfaces, such as MDF and tooling board, repeat Steps 1-4 above allowing **only 2-3 minutes** between coats to allow for solvent evaporation. When the HP2002 Sealer builds-up sufficiently, the board will start to obtain a gloss finish; at this point, the 20 minutes between coats will be required to ensure a high gloss finish is maintained.
6. Reapply product until the mould is sealed (i.e. a gloss surface starts to become evident). This can vary from only 1 to 2 coats for composite moulds to 8 – 12 coats for highly porous tooling board. See *NOTE* below
7. When dry, allow final film to cure for at least 2 hours at room temperature or 10 min at 60C before applying the release agent top-coat.

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8. Allowing a longer cure (e.g. over-night) or heat curing (e.g. 15 minutes at 60°C) will improve film durability and performance.
9. Apply release agent top-coat (e.g. Marbocote HP7; see Marbocote HP7 Technical Data Sheet for more details).

Spray Application:

When spraying, the use of a High Volume Low Pressure spray gun is strongly recommended. This type of spray gun will give the best drying pattern and highest gloss finish while providing optimum transfer efficiency.

1. The spray gun should be set at 2 – 2.5 bar pressure (30-35 psi) and ideally fitted with a fluid needle of 1.2mm diameter or less (the smaller the better).
2. Holding the nozzle of the gun approximately 20cm from the mould surface, adjust the output so that the product forms a wet film without running or dripping (especially vertical surfaces).
3. Systematically coat the entire surface of the mould. Care must be taken to over-lap sprayed areas.
4. Allow the product to dry (typically approx. 5 minutes at 20°C) before applying the next coat. Apply each coat at 90° to the previous.
5. Depending on the porosity of the substrate, repeat Steps 1-4 above until the mould is sealed (typically 1 coat for composite surfaces, 4-6 coats for tooling board). See *NOTE* below.
6. When dry, allow final film to cure for at least 2 hours at room temperature before applying the release agent top-coat. Allowing a longer cure (e.g. over-night) or heat curing (e.g. 15 minutes hour at 60°C) will improve film durability and performance.
7. Apply release agent top-coat (e.g. Marbocote HP7; see HP7 Technical Data Sheet for more details).

*** NOTE***

The number of coats of HP2002 Tool Sealer required depends on the porosity of the surface and the amount applied with each coat. Due to variations in application technique and to the large range in

porosity observed in mould and tooling systems, prior to using HP2002 Tool Sealer in a production environment it is important that the user determine for themselves how many coats are required to adequately seal the type of substrate being coated.

Once a substrate has been sealed (i.e. a gloss or semi-gloss finish is witnessed), do not re-wipe or re-coat a partially cured film; poor cosmetics will result.

A "mirror-like" finish can be obtained by a light de-nibbing just prior to the final coat of HP2002 (i.e. removing the top surface of the coating using a fine grade abrasive paper of 800 grit or higher). This will remove the effects of any dust and/or debris that has accumulated on the surface of the HP2002 during its application. The application of additional 1 or 2 coats of HP2002 after the de-nibbing will generate a high gloss with virtually no imperfections.

When spray applying, waiting at least 20 minutes before applying the last coat will give the highest possible gloss finish.

Depending on mould configuration and room environment (temperature and humidity), the HP2002 Tool Sealer may also require a longer cure than detailed above. The efficiency of the final release film is best determined through a combination of tape tests and experimentation.

After wipe application, particularly to composite moulds, interference fringes (colours) may be observed in the film. This is normal and results from the thickness of the transparent HP2002 film and will not transfer to or be witnessed on the released surface.

Marbocote HP2002 Sealer must be used in conjunction with an appropriate release agent, such as Marbocote HP7.

Packaging:

Marbocote HP2002 Mould and Tool Sealer is available in 0.5L and 1L metal tins.

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