

TECHNICAL DATA SHEET



MARBOCOTE HP1000N Mould and Tool Sealer

Note: The user will determine the suitability for use of this product. The recommendations / data given above are based on information we believe to be accurate. They are intended to be used only as a guide for selection for end-use evaluation and do not constitute a product specification. Marbocote cannot assume responsibility for results obtained by use of this product as we have no control over end-use applications or handling. Marbocote therefore specifically disclaims any damage or loss of any kind in relation to the use of this product.

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Product Description:

Marbocote® HP1000N Mould Sealer is designed to seal all types of highly porous substrates including epoxy and polyurethane tooling board, MDF, gelcoated and nongelcoated polyester and epoxy composite moulds. Marbocote HP1000N Mould Sealer is a high solids moisture cure system in a hydrocarbon/alcohol solvent blend. Marbocote HP1000N Mould 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 HP 7) and can be used to re-condition/enhance the gloss of old moulds.

Product Benefits:

- High Sealing Capability
- Easy, quick application
- Fast cure
- Non-contaminating
- No aromatic solvents
- Low odour

Physical Properties:

Appearance	-	Clear, colourless liquid
Odour	-	Hydrocarbon/alcohol
Specific Gravity	-	0.792 g/cc
Flash Point	-	<21°C
Solvents	-	Aliphatic Hydrocarbon
Coverage	-	20 - 25m ² / L
Shelf life	-	6 months
Storage	-	Flammable store (see Safety Data Sheet for further details).

Caution:

The polymeric resin used in Marbocote HP1000N Mould Sealer reacts with moisture. Please ensure can is resealed immediately after use. Do not mix with other products or solvents.

Application of the HP1000N should be conducted in a dust free area with good ventilation.

Application:

Please read Safety Data Sheet before use. Before applying the HP1000N 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 release agent application should be performed in a well ventilated area.

Wipe Application:

1. Apply Marbocote HP1000N Mould Sealer to clean, dry cloth. The choice of cloth is important; as the HP1000N 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 0.5m². Vigorous rubbing or polishing is not required.
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. Allow a minimum of 20 minutes at room temperature (20°C) between coats. Depending on the porosity of the substrate, repeat Steps 1-4 above until the mould is sealed (i.e. a high gloss surface is obtained). This can vary from only 1 to 2 coats for composite moulds to 8 – 12 coats for highly porous 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 at 60°C) will improve film durability and performance.
7. Apply release agent top-coat (e.g. Marbocote HP 7 or 227CEE; see specific 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).

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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. 2 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 HP 7 or 227CEE).

* NOTE*

The number of coats of HP1000 Mould 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 HP1000N Mould 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.

When applying the first 4-6 coats to tooling board, it is generally not necessary to wait 20 minutes between coats. Due to the porosity of the board, only 2-3 minutes is required to allow for solvent evaporation. When the HP1000N 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.

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

Depending on mould configuration and room environment (temperature and humidity), the HP1000N Mould 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 results from the thickness of the transparent HP1000N film and will not transfer to or be witnessed on the released surface.

Marbocote HP1000N Sealer must be used in conjunction with an appropriate release agent, such as Marbocote HP 7 or 227 CEE.

Packaging:

Marbocote HP1000N Mould Sealer is available in 1L metal tins.

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