

# TECHNICAL DATA SHEET

## SPRAYCOTE FD RELEASE AGENT

### Product Description:

Marbocote® Spraycote FD is designed to release glass reinforced polyester (GRP) or vinyl ester parts from non-porous or gelcoated moulds. Marbocote Spraycote FD is ideally suited for high gloss applications and provides a high gloss finish by simple spray application; there is no need for rubbing or polishing. The Marbocote Spraycote FD is durable and capable of giving many releases per application. It will not contaminate the released surface.

### Product Benefits:

- Quick and easy spray application
- Reproduces finish on mould, i.e. high gloss on high gloss moulds, matte finish on matte moulds
- Ideal for non-skid or textured moulds
- Fast Dry; no waiting between coats
- Minimal mould build-up
- Versatile, can be used on all mould surfaces
- Durable; provides multiple releases per application

### Physical Properties:

Appearance	-	Clear, colourless liquid
Odour	-	Hydrocarbon
Specific Gravity	-	0.730 g/cc
Flash Point	-	10°C
Solvents	-	Aliphatic hydrocarbon
Coverage	-	75 – 100m <sup>2</sup> / L per coat
Shelf life	-	12 months
Storage	-	Flammable store (see Safety Data Sheet for further details).

### Note:

The polymeric resin used in Marbocote Spraycote FD reacts with moisture. Ensure air line is dry before use, if possible use a desiccator. If air line is not dry this can cause pre-release, hazy and fish eyes. Please ensure can is resealed after use. Marbocote Spraycote FD is supplied ready to use; no shaking or mixing is required. Do not mix with other products or solvents.

### Application:

Please read Safety Data Sheet before use.

If necessary, polish mould to desired level of gloss. If a wax or silicone based release agent has been used previously, remove all traces of previous product using a solvent based cleaner such as Marbocote Mould Cleaner (please see separate data sheet describing this process). Marbocote Spraycote FD can be applied over existing semi-permanent release agents without a further cleaning step. However, the mould should be clean and dry before use. As with all processes involving solvents, mould cleaning and release agent application should be performed in a well ventilated area.

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Marbocote Spraycote FD can be applied using any spray gun capable of fine atomisation. However, 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 less than 1.4mm diameter.
2. Holding the nozzle of the gun approximately 20cm from the mould surface, adjust the output so that the film dries in approximately 2-3 seconds when using a normal spray technique. If the film stays wet for >5 seconds, too much product is being applied.
3. Systematically coat the entire surface of the mould. As the film dries clear, care must be taken to over-lap sprayed areas.
4. Immediately after applying the first coat, apply the second at 90° to the first. No waiting is required between coats.
5. For new moulds or repaired areas on old moulds, a total of 5 coats are required. For old moulds (moulds having been previously coated with release agent), clean the mould as described above and apply 3 coats.
6. Allow a minimum of 30 minutes after the final coat for the film to cure before moulding.

### Tips:

- Test the gun settings and spray technique on the mould flange/edge to give ideal coverage.
- Correct application of the product produces a light mist on the surface of the mould that dries in a few seconds.
- If the product is over applied (i.e. hazes), rub the area with a clean dry cloth and reapply in the same manner as described above.
- If any product drips from the spray gun, wipe dry immediately and continue spraying.
- Only dispense sufficient product for immediate use. Do not pour material back into the can.

### Reapplication:

When release becomes hesitant, reapply one coat of Marbocote Spraycote FD in the same manner as described above.

### NOTE:

Use the tape-test (contact a Marbocote Technician for details) before and after Spraycote FD application. This will initially ensure the mould is clean and latterly, to ensure correct Spraycote FD coverage and cure times have been observed and that the coating is ready for production. If the tape release is hesitant after Spraycote FD application, simply apply another coat in the same manner as described above.

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## **Troubleshooting:**

<b><u>Problem</u></b>	<b><u>Cause</u></b>	<b><u>Solution</u></b>
Hazing	Over application  Configuration of mould (female) – poor air circulation in mould well prevents the quick dry of Spraycote FD (important to generate a high gloss finish). A very slow dry time causes hazing of the film.	Check spray technique: air pressure, spray pattern, gun output, distance from mould surface, spray speed. Check coverage rate. If an unacceptable degree of hazing has occurred, rub the area with a clean dry cotton cloth and re-apply. If the product has cured re-polishing may be necessary. Re-apply Spraycote FD as for an old mould.  Ensure good air circulation over mould. Angle the mould to allow solvent vapour to drain out of the mould well. Alternatively, use a fan to increase air flow over the mould (placed in an appropriate position to blow across the mould). When using a fan, it is important that dust is not blown onto the mould.
Poor durability (few releases per application)	The Spraycote FD container has been left open for an extended period.  Under application	Ensure can is resealed after each and every use. Replace with fresh product.  Check spray technique: air pressure, spray pattern, gun output, distance from mould surface (most critical), spray speed. Check coverage rate (note: if the spray-gun is held too far from the mould surface, although the usage may be as recommended, the Spraycote film may be too thin – ensure that the wet film can be seen when applying).
Poor/tight release	Highly porous moulds  Under application	Spraycote FD is designed to be applied to high gloss gel coated moulds. For matte finish or highly porous moulds, an alternative product may be more appropriate. Please consult a Marbocote Technical Representative for specific product advice.  See above
Mould hazes after first release	Green mould. The mould has not been allowed to cure for the period specified by the gel coat/resin manufacturer.	Allow mould to cure for gel coat/resin manufacturer's recommended cure time (typically 2-3 weeks) before using. If any colour is removed during the cleaning process, i.e. discolours the cloth, this is a good indication of a soft or green mould.

## **GRP moulding outside the usual 15 – 35°C range.**

GRP moulding outside the usual 15 – 35°C range has many other detrimental effects, not just on the release agent. For example, gel coat application below 15°C may result in permanent under cure. The further from this ideal temperature range that moulding is performed, the highly the risk of problems occurring. Please observe the recommendations of the gel coat and/or resin manufacture(s) with respect to the use of their products at these temperatures.

Although the recommended application temperature for Spraycote FD is also between 15 and 35°C, the product may be used outside this range providing the following precautions are observed:

### **Below 15°C:**

- An extra coat of Spraycote is advised, i.e. 4 coats for old moulds or 6 coats for new moulds.
- The spray gun should be adjusted to allow for the slower drying time of Spraycote. For example, at 10°C, instead of the usual ideal 2-3 second dry time, the product should dry in an ideal 4-6 seconds.
- Greater care is required not to over apply, i.e. the dry time should be on longer than 10 seconds.
- Ensure the temperature of the Spraycote is the same as that of the mould (to avoid condensation), i.e. store the can and the mould inside.
- Extra time should be allowed for the final cure; for examples, at 10°C, allow a minimum of 60 minutes before starting production. An over-night coat is recommended.

### **Above 35°C:**

- Above 35°C, as the product will dry very quickly, there is a greater tendency to over apply. Ensure that a wet film is visible for ideally 1-2 seconds. A longer dry time may result in a hazy (white) film. If this occurs, clean mould with Marbocote Cleaner (see Cleaner Tech Data sheet for details) and re-apply 1 coat of Spraycote.
- Apply one less coat than standard application, i.e. a total of 2 coats for old moulds and 4 for new moulds and repaired areas.

**If in any doubt, please contact a Marbocote Technician at the number below**

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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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