



## RELEASE 100

**A SOLVENT BASED SEMI-PERMANENT RELEASE AGENT FOR FIBRE REINFORCED POLYMERS, THERMOSETTING RESINS AND ROTATIONALLY MOULDED COMPONENTS**



**RELEASE 100** has been specifically formulated to give multiple releases of a wide range of both fibre reinforced polymers, including, epoxies, polyester composites and thermosetting resins; and rotationally moulded components.

Ideal for use in resin transfer moulding processes and for traditional fibre reinforced moulding processes where there are high draft areas on the mould surface or where a gelcoat is not being used. In rotational moulding applications, when the coating is applied correctly to a pre-heated mould surface to form a thin, inert and thermally stable coating, multiple releases of many grades of polyethylene and polypropylene can be expected.



### ADVANTAGES

- Low Odour
- Fast room temperature cure
- High gloss & high slip
- No contaminating transfer - will not affect post moulding processes
- Versatile release for many polymer types and mould substrates

### MOULD PREPARATION

**New Moulds:** All moulds must be thoroughly cleaned and dried and any traces of previous release agents must be removed. Ambersil Polyester Mould Cleaner is the ideal solvent for this cleaning process.

NB: It is essential that resin tooling is fully cured before cleaning begins.

**Old Moulds:** All traces of previous release agents and moulding residues must be cleaned away taking care to ensure that any deep cavities, corners and undercuts are free of residues and signs of contamination. Some form of abrasion may be required using a fine polishing compound followed by a solvent wash. This will remove any polymer/release agent build up and other contaminants prior to sealing the mould.

### APPLICATION

**Ambersil RELEASE 100** is moisture sensitive, remember to keep the container tightly closed when not in use. Due to its high resin solids content, it can be used without prior sealing of the mould. For new, porous or damaged moulds, additional coats should act as an effective sealer. Ambersil RELEASE 100 can safely be applied to mould surfaces at temperatures between ambient room temperature and 60°C by spraying, brushing or wiping with a clean lint free cloth.

NB. When spraying ensure that a dry air source or an airless spray system is used. Where a gel coat system is likely to be used a wipe on, wipe off method of application is recommended.

If at all possible the mould surface should be warmed to 50°C to drive off any surface moisture prior to applying the release agent.

#### **APPLICATION – FIBRE REINFORCED POLYMERS AND THERMOSETTING RESINS**

1. Take a 100% cotton cloth and fold into a small pad that can be held comfortably in the flat of your hand.
2. Away from the mould to be treated, pour sufficient release 100 to dampen the cloth. It must be wet but not so that excess product drips from it.
3. Starting at one end of the moulds, wipe a smooth, wet film over a small area of the mould surface. Do not press down on the cloth, the weight of your fingers lightly applied is sufficient. Do not wipe over an area already coated whilst it is still wet and avoid over application so that "run or sag" marks appear in the liquid film.
4. Allow 5-10 minutes after each coat has been applied before applying the next. The film should be dry and not feel tacky. Apply 4 thin coats in total.
5. Over application can leave a haze on the surface of the mould. Once the coating has been allowed to cure for 10 mins take a clean dry 100% cotton cloth and lightly wipe over the whole mould surface. This will reduce the haze and leave a high gloss finish.
6. Performance will be enhanced by re-coating once the first 2 pulls have been made. For moulds converted from wax, an extra coat of RELEASE 100 should be applied after each of the 1st 3 mouldings. After this the mould will become conditioned to the RELEASE 100 and release will be more uniform and multiple releases will be obtained.
7. Wait 15-30 mins at end of final coating before beginning production.

NB. Pay special attention to areas of high draft, corners and areas where moulding may get tight due to shrinkage of the polyester resin.

#### **APPLICATION – ROTATIONAL MOULDING**

1. Only a thin wet film is required. Wipe a smooth thin, continuous film across a section of the mould surface. Avoid wiping or spraying over the same area that was just coated until the solvent has fully evaporated. If spraying, hold the nozzle 8-10" from the mould surface. To obtain the best results, coat small areas at a time working progressively from one side of the mould to the other.
2. On new moulds apply 2-3 base coats prior to commencing moulding, allowing up to 5-10 minutes after each application for complete solvent evaporation. The film should be dry and not feel tacky. A further two coats should be applied after the second release from the tool paying special attention to any deep cavities and undercuts and leaving 5-10 mins after the final coat for the film to cure properly.
3. Spraying may cause a matt surface finish, this can be gently buffed using a cotton cloth to enhance the gloss levels.
4. Performance will be enhanced by re-coating once the first few releases have been made. As the mould becomes conditioned to Ambersil RELEASE 100, release will become more uniform and multiple releases will be obtained.
5. When any slight variances in the quality of release are noted, a light touch up coat may be applied. This may be done to the affected area or to the whole mould surface following the guidelines above.

**Ambersil RELEASE 100** will cover approximately 25-30<sup>m</sup><sup>2</sup> / litre per coat. This figure is approximate and will depend on the complexity of the mould and the experience of the user.

#### **CHEMICAL AND PHYSICAL PROPERTIES**

Appearance	: Clear liquid
Odour	: Hydrocarbon
S.G.	: 0.730 - 0.735
Solvents	: Aliphatic Naptha
Flashpoint	: <10°C
Packaging	: 5 Litres

#### **FLAMMABILITY & STORAGE**

**Ambersil RELEASE 100** contains flammable solvents, if spilt the solvents will evaporate leaving the non-flammable base resin. Large spillages should be contained using sand, earth or other absorbent material and filled into containers suitable for disposal according to local authority regulations.

#### **SAFETY**

Consult MSDS before using this product and ensure that the appropriate eye and skin protection are worn at all times.

#### **STORAGE**

The product may be stored at normal ambient temperatures and has a shelf life of not less than 12 months with correct storage.

#### **HEALTH AND SAFETY**

Health and Safety sheet available separately.

#### **TECHNICAL SERVICE**

Ambersil provides a technical support service and maintains a constant programme of research and development. We are able to assist customers by specific product development to meet particular requirements.

#### **MISREPRESENTATION ACT 1967      TRADE DESCRIPTIONS ACT 1968**

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