Technical Data

COM 400

A semi-permanent, multiple release, non-contaminating release agent for performance composites

COM 400 is a specialist release agent, designed to provide multiple release with no contaminating transfer. Can be used for the release of epoxides, polyesters, thermoplastics, thermosetting resins, boron, aramid and graphite/carbon fibre composites and fibreglass laminates.

This semi-permanent, non migratory released system chemically bonds to the mould surface to form a microthin film which is stable at temperatures exceeding most moulding processes. Mould utilisation is increased by the absence of mould build-up, reducing the need to clean moulds between applications of the release agent. COM 400 is non-transferring, therefore minimal preparation of the moulded product is required prior to painting, bonding or other in mould or secondary processes.

ADVANTAGES

* Fast dry time (<1min)
* Mould build-up
* Minimum reject rates
* Higher productivity
* No contaminating transfer
* High Thermal stability
* Significantly lower mould maintenance costs

CHEMICAL AND PHYSICAL PROPERTIES

Appearance	:	Clear liquid
Odour	:	Hydrocarbon
Solvents	:	Aliphatic Hydrocarbon
S.G.	:	0.720 +/- 0.010
Flashpoint	:	7°C (45°F) Tag Closed Cup
Special Considerations	:	Moisture sensitive, keep container tightly closed when not in use. The product should always be used in a well ventilated area.
Shelf Life	:	1 year

MOULD PREPARATION

The mould surface must be clean and free of any release agent or sealer for Ambersil COM 400 to be completely effective.

New Moulds: Remover mould contamination with Ambersil Polyester Mould Cleaner or suitable solvent. Vapour degreasing may also be used if available. Special care should be taken not to damage resin moulds. Moulds coated with silicones can be cleaned with toluene, chlorinated solvents or mineral spirits, removing any trace of solvent with a clean cloth. Light industrial abrasives can be used to remove silicone build up.

Resin Moulds: Full curing of new moulds is advisable to ensure the best bonding of the COM 400 to the mould surface. New moulds for fibreglass and cultured marble moulding should be cured for as long as possible before starting full scale production.

Ambersil COM 400 can be chemically removed from the mould surface by washing with a weak 5% solution of caustic potash in either ethanol or methanol. The film can be physically abraded off with a suitable finishing compound or by the use of glass beads or shot blasting.

Note: For porous or slightly damaged moulds, Ambersil Seal 100 is recommended technical data is available.

APPLICATION

Ambersil COM 400 can be applied to mould surfaces at room temperature up to 60°C (140°F) by spraying, brushing or wiping with a clean lint-free, cotton cloth (COM 400 carrier solvents may dissolve the binders used in non-woven cloths). When spraying ensure a dry air source is used or use an airless spray system. Care should be taken to avoid contact with hands and it is, therefore, recommended to wear gloves. Always use in a well ventilated area.

1. Only a thin wet film is required. Wipe, spray or brush on a smooth, thin, continuous wet film. Avoid coating the same area that was just coated until the solvents have evaporated. When spraying hold nozzle 8-10 inches (20-30cm) from mould surface. It is suggested that small areas be coated working progressively from one side of the mould to the other.

2. Initially, apply 2-3 base coats allowing 5 minutes between coats for solvent evaporation.

3. Curing of the final coat takes a minimum of 30 minutes at room temperature and can be further shortened by baking the mould for only 5 minutes at 100-150°C (210-300°F).

4. Maximum releases will be obtained as the mould surface becomes conditioned to Ambersil COM 400. Performance is enhanced by re-coating once, after the first few initial pulls.

5. When any release difficulty is experienced, the area in question can then be "touched-up" by recoating the entire surface or coating those areas where release difficulty is occurring.

FLAMMABILITY & STORAGE

Ambersil COM 400 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.

PACKAGING

5 litres

STORAGE

The product may be stored at normal ambient temperatures and has a shelf life of not less than 12 months with correct storage. Aerosols should always be stored below 50°C, away from direct heat and naked flame.

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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