

CR1 EASY-LEASE CHEMICAL RELEASE AGENT

Key Features

- Easy Application
- High Gloss Finish
- Good Sealing ability
- Semi-Permanent Application
- Excellent Releasing Properties

Product Description

CR1 Easy-Lease™ Chemical Release Agent is the ultimate blend in semi-permanent release agents; it provides exceptional sealing and release properties over a huge range of resins and mould materials. With a simple and forgiving application resulting in ultra-low build-up and high-gloss qualities, it is the one-stop release agent solution for advanced composite manufacturing.

CR1 Easy-Lease™ Chemical Release Agent is designed to release all types of epoxy, phenolic, polyester (GRP) or vinylester resins from steel, aluminium or composite moulds. It is an advanced polymeric resin in a non-chlorinated organic solvent blend and is applied by a simple wipe-on technique; there is no need for rubbing or polishing. The coating is durable and capable of giving many releases per application. It will not contaminate the released surface.

Compatibility

With the exception of silicone rubber and materials subject to solvent attack CR1 Easy-Lease™ Chemical Release Agent will work with many combinations of materials, however, we would always advise testing any new resin/mould material combination on a small sample before committing to a full moulding.

- All standard resins and gel-coats, polyester, vinylester, epoxy etc.
- All standard tool surfaces; epoxy, PU, polyester, vinylester, aluminium, stainless steel, glass, prepreps etc.
- Suitable for use in elevated temperature curing processes up to 175°C e.g. prepreg and oven curing.

Properties

The table below shows the typical uncured properties:

Property	Units	Result
Appearance	-	Clear, Colourless liquid
Odour	-	Aliphatic Hydrocarbon
Specific Gravity	g/cc	0.792
Flash Point	°C	10
Thermal Stability	°C	250
Coverage	m ² / L	60 - 75
Application Type		Wipe and Leave
Shelf Life	Months	6

How to Use

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 MC1 Mould Cleaner.

Mould cleaning and release agent application should be performed in a well ventilated area.

After preparing the mould surface with MC1 Mould Cleaner apply the CR1 Easy-Lease™ Chemical Release Agent in a thin film over the surface of the mould using a small piece of lint-free cloth.

Unlike many other chemical release systems Easy-Lease™ does not require the use of a separate mould sealer prior to application; providing ultimate reliability and simplicity.

Once the film begins to evaporate (5-30 seconds) use a second piece of cloth lightly in a circular motion to remove the excess and even-out the film.

On a new mould apply 6 coats leaving a minimum of 15mins between each application. Leave the final coat for at least 1 hour before using the mould.

Note: Large mould surfaces may need to be done in stages to avoid evaporation, depending upon working temperature and mould complexity around 0.5sqm should be considered the maximum area per application.

CR1 Easy-Lease™ Chemical Release Agent is a semi-permanent release agent meaning it is capable of multiple releases. For ambient temperature operations using normal resins and mould surfaces 5-10 'pulls' from a mould should be expected. As soon as there are any signs of the release quality diminishing re-apply one coat to restore the performance.

Because this release agent is very fast and simple to apply, for very complicated parts, or more aggressive processes such as prepreg and resin infusion, we would advise applying a coat between every release.

Sealing Model Board

It is possible to use Easy-Lease to seal and improve the surface of the PU240 an PU600 board however the amount of 'build' from each application of Easy-Lease is tiny and so a huge number of applications and drying cycles would be necessary. For this reason, it would normally be more effective (and certainly quicker) to use a proper board sealer such as our S120 Board Sealer which is much higher build and will therefore seal and surface the board more effectively. After using the board sealer, you will need to do some flattening and polishing to take the surface up to a smooth gloss.

Depending on the standard of the finish after machining, another product that could also be used to seal and surface the PU240 board would be either our Pattern Coat Primer or Pattern Coat Hi Gloss. Both of these products are considerably faster building than the S120 Board Sealer and so would be suitable if you have a coarser finish after machining which would benefit from a higher build coating prior to flattening/polishing which would allow the surface to be worked more.

Transport and Storage

Keep in a cool, dry, well ventilated area. The polymeric resin used in CR1 Easy-Lease™ Chemical Release Agent reacts with moisture. Keep containers tightly closed. Store in correctly labeled containers.

If stored under the above conditions CR1 Easy-Lease™ Chemical Release Agent will have a shelf life of 12 months, from the date of production.

Disclaimer

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

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