



SK2TR450-5

Semi-permanent mould release agent

DESCRIPTION

SK2TR450-5 is an easy to use, semi-permanent mould release agent for the processing of thermoset resins that provides excellent lubrication, rendering the product the release agent of choice when highly complex moulds with various undercuts are being used. Post processing, such as gluing or vanishing can be done without further treatments to the casting, since there is no transfer of SK2TR450-5 to the moulded parts. The product creates high gloss finished surfaces and minimizes build-up in the mould. It has a thermal stability till 450°C, the application temperature range is between 10°C - 80°C, allowing touch up coatings on hot moulds. Designated application fields include the processing thermoset resins, polyester, epoxy as well as phenolic resins. Especially highly complex mould geometries can reliably be casted.

This product is used in various manufacturing processes of parts made of composite materials.

APPLICATION

Cleaning process:

Mould surfaces should be thoroughly cleaned prior to the application of release agent SK2TR450-5. We recommend using our cleaner SK2TR000-2 to do so. Additional cleaning using a fast-evaporating solvent is also recommended to ensure all residues of fat and wax are eliminated.

Sealing process:

New moulds, recently repaired moulds or moulds with a porous surface need to be treated with an appropriate sealer prior to their initial use. Our sealers SK2TR450-2 or SK2TR450-3 will be appropriate as these has been specifically adjusted to incorporate with our semi-permanent release agents of category SK2TR.

Base Coating:

Release SK2TR450-5 is usually applied with the help of a soaked, yet not dripping wet clean lint-free cotton cloth. However, the product can be sprayed. Commence by applying the release agent to a small surface area of about 1 m². After approx. 10 – 15 seconds, when the film is still moist, use a second, clean and dry cloth to absorb the release agent excess and proceed by wiping in circular motion until a clear and dry film emerges. We recommend to wipe along the outer border of the mould first, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are treated.

A minimum of 2 layers of release agent SK2TR450-5 should be applied to obtain a smooth and homogenous base coat. Ensure that the solvent evaporates completely between each application. After application of the final layer, release agent should be allowed to cure for about 40 – 60 minutes. Curing time can be reduced by increasing of mould's temperature (approx. 50°C, 20-30 min.).

Mould touch-up:

Good conditioning of the mould will be achieved if the release agent film is refreshed 5-6 demoulding cycles after the initial base coating process. The release film wears during production. Hence, touch-up coatings should be applied frequently, considering a curing time of approx. 10 min at room temperature after each touch-up. The appropriate frequency of touchups required for sufficient release depends on individual production conditions and has to be determined in on-site trials. Please contact our technical service for assistance. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency as this will significantly reduce mould fouling and lead to extended mould service lives. Simultaneously, a constant high quality of the moulded parts can be achieved. Release agent SK2TR450-5 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. Touch-up of the complete mould is preferred, though.

Partial release film repairs:

Occasionally, a partial, drastic decrease in release performance might occur, requiring partial repair of the coating. In order to do so, the worn release film has to be removed completely 10 cm around the affected area with the help of soft abrasion, accompanied by wiping with solvent. Make sure that the mould's surface is thoroughly cleaned prior to application of a fresh base coat in the respective area in order to guarantee sufficient adhesion of the compensating layer to the mould. Grounding is done as described above (Base coat). Even release of the moulded parts will be maintained if the repaired area is touched-up after each release for the first 4-6 demoulding cycles after the repair.



TECHNICAL DATA	VALUE
Appearance:	Colourless liquid
Composition:	Mixture of resins in solvents
Density [g/cm3]:	Approx. 0. 8
Max. used T:	450°C
Flashpoint:	>25°C

PACKAGING TYPE	NET WEIGHT
Box	15 Cans x 1 L (0,78 kg)
Box	4 Cans x 5 L (3,9 kg)

STORAGE

The product should be stored in tightly sealed containers and has to be protected from frost, heat and direct sunlight. If these rules are obeyed, the product can be stored for at least 24 months.