



SK2TR450-4

Semi-permanent mould release agent

DESCRIPTION

SK2TR450-4 is an easy-to-use semi-permanent mould release agent that dispenses with the need for application of any waxes. Since release agent SK2TR450-4 shows excellent adhesion to the mould's surface, there is no transfer of release agent to the moulded parts, rendering post processing possible without further treatments. It creates high gloss finished surfaces and minimizes release agent residues in the mould. The product exhibits a thermal stability up to 450 °C, the application temperature range is between 10–80 °C allowing for touch-ups on hot moulds. Release agent SK2TR450-4 is a multi-purpose product commonly used in the processing of thermoset resins, polyester, epoxy and phenolic resins.

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

APPLICATION

Cleaning process:

We recommend to thoroughly clean mould surfaces prior to the application of release agent SK2TR450-4. Our cleaner SK2TR000-2 will be sufficient. In order to ensure all residues of fat and wax are removed completely, additional cleaning using a fast-evaporating solvent is advisable.

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. We recommend using our sealer SK2TR450-2 or SK2TR450-3, which has been specifically adjusted to incorporate our semi-permanent release agents of the category SK2TR.

Base Coating:

Release agent SK2TR450-4 can be sprayed, but application is commonly done by using a soaked, yet not dripping wet clean lint-free cotton cloth. Start by applying the release agent to a small manageable surface. After approx. 10–15 s, 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 suggest beginning to wipe along the outer border, approaching the inside. Repeat this procedure with the adjacent areas until all parts of the mould are evenly coated. In order to obtain a smooth and homogenous base coat, a minimum of 2 layers of release agent SK2TR450-4 should be applied. Make sure, that the solvent is evaporated completely between each layer. After the final layer has been applied, allow the release agent to cure for about 40–60 min. Curing time can be reduced by heating the mould (approx. 50 °C, 20-30 min.).

Mould touch-up:

The first touch-up should be performed after 5-6 demouldings in order to prepare the mould for a high number of demoulding cycles. Since the release film wears during production touch-up coatings should be applied frequently. Release agent SK2TR450-4 has been designed to incorporate and chemically bond touch-up layers of itself. Hence, curing time after touch-up reduces to approx. 10 min at room temperature. The appropriate frequency of touch-ups for sufficient release depends on mould configuration and abrasion parameters and has to be determined in individual on-site trials. We highly recommend to apply the touch-up prior to an observed decrease in release efficiency. This procedure will significantly reduce mould fouling due to build-ups and lead to extended mould service lives while ensuring a constant high quality of the moulded parts. Release agent SK2TR450-4 can also be touched-up partially, refreshing the release agent film only on those mould areas experiencing higher wear. However, we recommend touch-up of the complete mould.

Partial release film repairs:

In the case of a partial, drastic decrease in release performance, the release coating should be partially repaired. Prior to doing 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.



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TECHNICAL DATA	VALUE
Appearance:	Colourless liquid
Composition:	Mixture of resins in solvents
Density [g/cm ³]:	Approx. 0. 8
Max. used T:	450°C
Flashpoint:	>25°C

PACKAGING TYPE	NET WEIGHT
Box	15 Cans x 1 L
Canister	Can 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.