KWALITY CHEMICALS TECHNICAL DATA

PVA Release Agents

Intended Use

Designed as a mould release/parting agent for use when fabricating mouldings in polyestergelcoat and layup resins in GRP construction.

Characteristics

PVA Release Agents are a liquid solution of polyvinyl alcohol resin in a mixture of water and sometimes including small quantities of industrial methylated spirits dependent upon the grade. Theyhave been developed to give best results if spray applied but glossy versions can also be applied by sponge or soft brush.

PVA Release Agents can be applied over wax polish but thewax polish must be silicone free. Soluble in water and therefore can be washed off moulds and mouldings with water even when dry.

Application

To achieve the best results when using PVA Release Agents it is recommended that they bespray applied. However, the glossy versions can also be applied by sponge or soft brush.The mould surface must first be thoroughly waxed and polished with a silicone-free waxensuring that no areas are left unwaxed as they will result in sticking of the moulding during release.

During PVA application care must be taken not to flood the mould surface as this will cause variation to finish over the area coated leading to a similar finish variation in themoulding. The best spray results are obtained by using as fine a spray as possible, and a highair pressure of between 80 and 90 psi. A low output of PVA and a normal spraying distance of 30-40 cms should be observed. One thin coat of PVA should be applied via a continuous multiple pass technique to give a wet film thickness of 50-150pm (microns). The spray guncan be washed out after use with water and flushed through with solvent to remove residual water.

The PVA must be allowed to dry completely before gelcoat or resin application to themould begins. Cold, damp conditions will retard the drying rate. The drying rate should notbe hastened by the simple expedient of turning a warm air fan over the sprayed mould; this will cause the wet PVA to skin over on the exposed film surface whilst leaving moist solution trapped underneath. Preferably, the mould itself should be pre-warmed in adverse conditions.

A PVAfilm is strongly recommended on new tooling for its insurance value in case waxing has been insufficient. Once the moulding has been constructed on the mould and has cured, the PVAfilm may be dissolved to float the moulding free of the mould by working warm water down into the interface between the moulding and mould. PVA may be removed from both mouldand mouldings by washing them with water or methylated spirit where moulds have become stained.

Properties

Property Specification Tested Method

Appearance- Clear transparent liquid ,Clear hazy liquid
Specific Gravity - 0.92-0.96g/cc @ 25°C ,
Finish - Smooth and even ,
Drying Time - Approx 1 hour @ 20-25°C ,
Stability @ 0°C - Still liquid after 24 hours ,
Flash point - Approx 23°C
Shelf Life 12 months