



Product Bulletin

PARTALL[®] 103 PVA Parting Film

General Product Information

PARTALL[®] 103 PVA Parting Film is a solution of polyvinyl alcohol polymer (PVA/PVOH), water and alcohols. This liquid solution cures to a thin and flexible dry film through the evaporation of water and alcohol resulting in a dry film barrier that is resistant to solvents found in thermoset resins and many adhesives. Specially formulated for high gloss finish with spray application on hot elastomeric rubber molds; for example Si mold heated to 250°F (120°C). The dry film may be peeled off or dissolved with water when removal is necessary. PVA is commonly used as a parting agent for separation between polyester, vinyl ester, epoxy, acrylic and urethane resins and various mold or plug surfaces; or as a masking film or barrier (frisket) to prevent migration of solvent-based adhesives, sealants or coatings during application. Not for use with resins that give off water such as phenolics. PARTALL[®] 103 PVA Parting Film may also be used as a temporary carrier for suspending various dry ingredients on substrates.

PARTALL[®] 103 PVA Parting Film parts easily from non-porous substrates and is readily dissolved from molded parts and spray equipment with water. The most common methods of application as a parting film for thermoset composites is with a spray gun. May also be applied by wiping with sponge or cloth, brushing, rolling, or flooding and draining excess on surfaces. Typically used over mold release wax, but in some applications PVA Parting Films are used as stand-alone separating films or barriers.

Preparing Mold Surface

Porous surfaces (e.g.- plaster or wood) should be dry and first sealed with lacquer or similar coating followed with one or more coats of a durable mold release wax such as PARTALL[®] Paste #2 or Formula Five[®] Mold Release Wax buffed to a high gloss. Waxes containing high levels of silicone such as automotive wax should be avoided as they can create separation or pin holes or separation in the PVA film. Best practice is to allow residual solvents to out-gas from mold release wax for one hour prior to application.

Directions for Use

PARTALL[®] 103 PVA Parting Film is ready to use as received. No mixing or agitation is necessary. For best cosmetic results spray with HVLP gun using a fluid orifice of 1.8 – 2.2 mm diameter with air pressure at the gun at 22 PSI (1.5 BAR). Adjust to create an elongated vertical oval pattern of 8 – 10 in (20 – 25 cm) in height. Normal spraying distance is 12 – 18 in (30 to 45 cm).

Apply a mist coat of PARTALL[®] 103 PVA Parting Film to mold surface followed by at least two flow coats. Allow each coat to dry completely before proceeding. Dry film thickness should be at least 2 - 4 mils (50 – 100 µm) on new or reconditioned molds and 1 - 2 mil (25 – 50 µm) on seasoned molds. One U.S. quart (3.79 liter) will cover about 400 square feet (35 meter sq.).

Do not begin casting or molding parts until PVA surface is completely dry. Drying time is approximately 15 minutes for mist coats and 30 minutes for flow coats depending on ambient temperature and humidity. A spray density that allows the liquid to flow together and form a continuous film without creating drips or runs on vertical surfaces or pooling on horizontal surfaces is ideal. Film should be very smooth and glossy when dry. A dull film may result from insufficient spray indicating insufficient protective covering, porosity or pinholes.

DISCLAIMER: The information and recommendations contained herein are, to the best of our knowledge, accurate and reliable. No guarantee of their accuracy is made, however, and the products discussed are sold without warranty, express or implied, and upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses. February 19, 2010.