Technical Data Sheet

APPLICATION GUIDE FOR PBWW POLYURETHANE SILK SCREEN INKS ON RUBBER AND RECYCLED RUBBER

Getting Started:

Remove all plants, food and people not directly involved with the application from the immediate area of work.

All workers in the area of application should be equipped with the appropriate safety equipment and protective clothing. Establish adequate ventilation. See the SDS for specific recommendations.

Surface Preparation:

Cleaning:

The surface to be printed must be clean and dry. Remove all contaminants from the surface. If necessary, remove surface dirt by washing and rinsing with clean water. Allow the surface to dry completely.

Solvent Wash:

Rubber contains oils that can migrate to the surface and interfere with the ability of the PBWW inks to adhere properly. The parts must be rubbed down with UC500S Thinner. The key is to rub the rubber surface with the UC500S Thinner to remove any oils or remaining contaminants that will interfere with the adhesion of the PBWW inks. Make sure that you change rags frequently, and that you refresh the solvent used to avoid cross contaminating the surface with the residue picked up off the previously cleaned pieces. Solvent soaked rags are a potential fire hazard. Store and dispose of them responsibly in accordance with the appropriate state or local regulations.

Surface Conditioning:

POLYBOND 4988 chemically conditions the surface of the rubber to better accept the PBWW inks. This results in superior adhesion. Pour 1 ½ - 2 inches of POLYBOND 4988 into an appropriate plastic (HDPE) container. Using a white cotton rag, wipe the surface to be printed with a good wet coat of POLYBOND 4988. Make sure that the entire surface that will be printed comes in contact with the POLYBOND 4988. Refill the plastic container or roller tray with POLYBOND as needed, but add no more than 1 ½ - 2 inches at the bottom of the container. This reduces the loss of POLYBOND 4988 through evaporation, and also prevents the transfer of contaminants into the clean POLYBOND. As soon as the rubber surface appears dry (2 – 3 minutes), it is ready to be coated. You may notice a whitish deposit or film from the POLYBOND 4988 on the surface. This is normal. If the rubber cannot be coated within 6 hours after conditioning with the POLYBOND, then the surface

conditioning step must be repeated before applying the PBWW inks. When the surface conditioning is complete, dry out your equipment, and do not pour any of the used POLYBOND into the original container.
NOTE: Store the POLYBOND 4988 in a dark area away from light. If the POLYBOND has a whitish deposit or sediment in the bottom of its container, do not use it. It is no longer active.

Mixing instructions:

Make sure all preparations are completed, and all the equipment is ready before mixing. Mix the Part "A" thoroughly until homogeneous and prior to blending with the Part "B". Scrape the walls and bottom of the container to ensure that no pigment has settled out. Mix 4 Parts "A" to 1 Part "B" by volume. Mix well. Total mixing time should be 2 - 3 minutes. Scrape the walls and bottom of the container to ensure complete blending. For proper curing, the correct amount of Part "B" is essential. It is also vital that the components are thoroughly mixed together. Due to limited pot life do not mix more material than can be applied in 60 minutes (less in high humidity and or high temperature conditions).

Application:

PBWW SILK-SCREEN INKS are formulated for silk-screening applications but may also be applied by roller over limited areas. One or more coats may be applied to achieve the desired dry film thickness. A 2 - 3 mil dry film thickness is recommended. For good inter-coat adhesion, subsequent coats must be applied within 24 hours of the preceding coat. Otherwise, a light abrading of the surface is recommended between coats. Drying times may be accelerated considerably with the addition of our 292-1AC or SC888 Accelerator and/or through the introduction of heat through various commercially available oven systems.

CLEAN UP: Wash all equipment and tools with UC500S Thinner immediately after use.

Drying time (ASTM 1640):

(at 21°C / 70°F and 50% R.H.)	
Re-coat time:	**8 - 12 hours**
Touch dry (for inspection purposes):	**8 - 24 hours**
Dry hard :	**72 - 96 hours**
Complete chemical cure:	**7 to 10 days**

Disclaimer:

Due to conditions beyond our control, for example: the variable chemical composition of recycled rubber and rubber binders, or surface penetration of mould release agents; there may be cases where some adhesion problems or discoloration occur, even with proper surface preparation and application.

Safety Cautions:

Prior to using this product, consult the SDS for more information. Avoid temperatures above +38°C or below +10°C. Avoid prolonged breathing of vapors and repeated skin contact. Use in a well ventilated area and do not smoke while applying. Keep away from fire and open flame. Avoid contact with eyes, skin and clothing. Wear gloves and protect face during application. In case of contact with the eyes, flush immediately with plenty of water. Get medical attention promptly. If skin contact occurs, remove with alcohol and wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. Wash hands thoroughly before eating or smoking, POISONOUS IF SWALLOWED. Should PBWW inks be swallowed accidentally, do not induce vomiting and contact physician immediately.

Note: PBWW inks, POLYBOND 4988 Surface Conditioner and UC500S Thinner are FLAMMABLE. Smoking or the use of electrical equipment that may cause sparks should be prohibited while these products are in use. Solvent soaked rags represent a dangerous fire hazard. They should be discarded in accordance with local or state safety regulations.

Warranty:

PBWW Inc. warrants that this product has been manufactured from the highest quality raw materials, under conditions to meet rigid quality standards established by PBWW Inc. Therefore the following is made in lieu of all other warranties expressed or implied. Seller's and manufacturer's sole obligation shall be to replace such quantity of the product proven to be defective. Neither seller nor manufacturer shall be liable for any loss or damage direct or consequential arising out of the use of or the inability to use this product. Before using, user shall determine the suitability of the product for his intended use. User assumes all risks and liability whatsoever in connection therewith. No person has authority to change these terms and there are no warranties, except as herein stated.

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