Painting KYDEX® Thermoplastic Sheet

Introduction

KYDEX® thermoplastic sheet is easily painted if recommended paints are used in accordance with manufacturer’s recommendations. Due to the high chemical resistance of it, only certain paints adhere well. It is very important to use recommended paints to paint KYDEX® sheet. SEKISUI SPI has performed research into which paints are suitable and what methods should be used to paint it. These methods have proven successful in the field, and will provide excellent results.

Paint Selection

Recent environmental concerns and legislation have caused the creation of paints with differing levels of “Volatile Organic Compounds” (VOC). High VOC level paints have a high solvent content. Low VOC level paints exhibit a lower level of solvent content, and also do less environmental damage. Some municipalities have legislated what VOC levels may be legally used in their jurisdiction. Please check with local officials to learn if any restrictions on VOC levels exist before selecting a paint. Normal VOC level paints have proven successful to paint KYDEX® sheet.

The following paints have been tested and are recommended for painting KYDEX® sheet:

- Sherwin Williams SuperPaint® or Duration™
- Sherwin Williams Polane™ Series (Spray application only)
  Phone: (800) 331-7979 (Ronseal U.K.: 44.114.246.7171) web: http://www.sherwin-williams.com/

- Cardinal Polyurethane 6400 Series (Spray application only)
  Phone: (323) 283-9335 web: http://www.cardinalpaint.com/

Considerations When Using Recommended Paints

Overheating during thermoforming may cause paint adhesion problems due to excess gloss. Be sure the KYDEX® sheet is formed in accordance with the recommendations of SEKISUI SPI.

Low VOC level paints have demonstrated lower adhesion properties. If a low VOC paint must be used, surface preparation prior to painting may increase adhesion. See “Surface Preparation” below.

Retarding agents are available from paint manufacturers, which have increased paint adhesion in laboratory testing. These retarding agents cause the paint mixture to evaporate slower, giving the paint more time to attack and adhere to the surface. As an example, adhesion of Polane T Plus paint was increased when Reducer R7K84 was replaced by retardant R7K216 in the paint mixture.

For external applications using Sherwin Williams Polane Series, use exterior catalyst V66V29 instead of the interior catalyst V66V27. The ratio is 6 parts paint, one part catalyst.
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Surface Preparation

If paint adhesion problems are encountered, try the following surface preparation techniques. Always check to make sure using any of the methods listed below does not violate existing environmental statutes.

Isopropyl Alcohol (IPA) Wiping – The KYDEX® sheet surface can be wiped using IPA or rubbing alcohol prior to painting. This method of treatment helps paint attack the surface and create a strong bond to the KYDEX® sheet.

Sanding – Sand the surface using fine grit sandpaper. This will roughen the surface and make it more suitable for paint adhesion, similar to prepping a glossy-painted wood surface. Wipe the surface with dry cloth or IPA after sanding to remove debris.

The following types of paints have provided poor adhesion in laboratory testing. SEKISUI SPI does not recommend the use of the following paint types: Epoxy Paints, Water-Based Latex Paints, and Oil-Based Enamels.

Even though SEKISUI SPI has experienced difficulties with the paints listed above, customers may experience success with these paint types in the field.

Paints Not Recommended

Because we cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability of the accuracy of this information or the suitability of our products in any given situation. Users should conduct their own tests to determine the suitability of each product for their particular purposes. Data in the physical property table represents typical values and are to serve only as a guide for engineering design. Results are obtained from specimens under ideal laboratory conditions. Right to change physical properties as a result of technical progress is reserved. THE PRODUCTS DISCUSSED ARE SOLD WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, EITHER EXPRESSED OR IMPLIED, EXCEPT AS PROVIDED IN OUR STANDARD TERMS AND CONDITIONS OF SALE. Buyer assumes all responsibility for loss or damage arising from the handling and use of our products, whether done in accordance with directions or not. In no event shall the supplier or the manufacturer be liable for incidental or consequential damages. Also, statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Consult local code and regulatory agencies for specific requirements regarding code compliance, transporting, processing, recycling and disposal of our product. Product not intended for use as a heat resistant surface. Texture, product grade and other conditions may cause variations in appearance.

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