

**POLYLITE® 33542-65 E**  
Tooling Resin

**DESCRIPTION**

POLYLITE® 33542-65 E is a pre-promoted, pre-filled, unsaturated polyester laminating resin suitable for the construction of GRP tooling. This resin is formulated for room temperature cure using MEK peroxide catalyst, and extra stabilized for warmer climate.

POLYLITE® 33542-65 E represents advancements of the successful Polylite Profile Tooling system, maintaining all the properties the original resin, with the convenience of a single product used with a conventional catalyst.

**APPLICATION**

POLYLITE® 33542-65 E requires stirring prior to use to ensure even filler distribution. Care must be taken to ensure that the application procedures described in the Profile Tooling Technical Guide are adhered to. As with all polyesters, time and degree of cure are functions of initiator concentration and of temperature. Resin and work area temperatures should be maintained between 18 and 25°C to ensure satisfactory results. No special precautions are necessary to ensure proper secondary bond performance with POLYLITE® 33542-65 E. As with any laminating resin, secondary bonding will be adversely affected in resin-rich areas or in laminates that have been exposed to heat or direct sunlight for an extended period of time. Should such conditions occur, or if greater than 48 hours has elapsed, thorough sanding and cleaning of the substrate is recommended prior to secondary laminate application. Also known to adversely affect secondary bond performance is contamination of the primary laminate (e.g. grinding dust, oil, moisture, waxes, release agents, etc.) and type of glass reinforcement used. The laminate surface should be free of contaminants prior to secondary bond application.

**FEATURES**

- Reduced tool building time up to 80%
- Low Shrinkage
- Rapid Barcol Development
- Colour change visible during cure
- SPC/SQC controlled

**BENEFITS**

- Significantly reduces labour costs
- Prototype tools can be made quickly and economically
- Gets tools into production sooner
- Tools reproduce master exactly
- Resulting tools are stress free
- Print-through and surface distortion are eliminated
- Tools can be demoulded sooner
- Built-in quality control indicator
- Batch-to-batch uniformity

The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. We warrant that our products will meet our written specifications. **Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose**, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.

**TYPICAL PROPERTIES**

**PHYSICAL DATA IN LIQUID STATE AT 23°C**

| Properties                                | Unit             | Value       | Test Method    |
|---|------------------|-------------|----------------|
| Viscosity                                 |                  |             |                |
| - Brookfield LV SP 3/6 rpm                | cps              | 3000-4000   | ASTM D 2196-86 |
| - ICI Cone and Plate                      | cps              | 500-600     | ISO 2884-1999  |
| Flash point                               | °C               | 32          | ASTM D 3278-95 |
| Density/Specific gravity at 20°C          | g/m <sup>3</sup> | 1.40 ± 0,02 | ISO 2811-2001  |
| Styrene content                           | % weight         | 29 ± 2,0    | B070           |
| Gel time: 200g Sample<br>1.25% PEROXIDE 1 | Minutes          | 50-70       | G020           |
| Shelf life, minimum                       | months           | 6           | G180           |

All POLYLITE<sup>®</sup> products are Quality Controlled with the specified catalyst. However, alternatives are available and all users should be aware that a single catalyst formulation cannot provide optimum results in all resin systems. The interaction between the catalyst and the inhibitor/accelerator systems used in our products is complex and varies from resin to resin. Consequently the gel and cure characteristics provided by alternate catalysts can vary greatly from those specified. It is, therefore, absolutely essential that the user evaluate each alternate catalyst in each product before full-scale manufacture is started.

**STORAGE**

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 24°C/75°F and away from heat ignition sources and sunlight. Resin should be warmed to at least 18°C/65°F prior to use in order to assure proper curing and handling. All storage areas and containers should conform to local fire and building codes. Copper or copper containing alloys should be avoided as containers. Store separate from oxidizing materials, peroxides and metal salts. Keep containers closed when not in use. Inventory levels should be kept to a reasonable minimum with first-in, first-out stock rotation.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's application bulletin "Bulk Storage and Handling of Unsaturated Polyester Resins." For information on other Reichhold resins or initiators, contact your sales representative or authorized Reichhold distributor.

**SAFETY**

**READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT**

Obtain a copy of the material safety data sheet on this product prior to use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of all products and understood prior to working with their materials.

DIRECTLY MIXING ANY ORGANIC PEROXIDE WITH A METAL SOAP, AMINE, OR OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION