

# Polylite<sup>®</sup> 415 – 741E

High HDT Resin

## DESCRIPTION

**Polylite<sup>®</sup> 415 – 741 E** is a reactive orthophthalic polyester resin with high heat distortion temperature combined with high tensile elongation.

The resin is thixotropic and has a viscosity which ensures thorough glass fiber impregnation.

**Polylite<sup>®</sup> 415 – 741 E is WRAS approved.** This can be used for constructing tanks to be in contact with potable water.

## APPLICATION

- **Polylite<sup>®</sup> 415 – 741 E** is designed for general GRP applications.

## FEATURES

- Low viscosity
- Reactive Resin - Rapid curing
- Good Mechanical properties
- High tensile elongation & HDT
- Statistically process and quality controlled by ISO 9000-2000
- WRAS Approval
- Excellent filler loading
- Excellent flow properties
- Permits high filler levels, reducing cost
- Good curing, Short de-molding time
- High output rate
- Better toughness and impact strength
- High heat resistant
- Batch-to-batch consistency.
- Can be used in potable water application

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.

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Reichhold Inc. PO Box: 16911, JAFZ, Dubai, UAE. Tel. +971 4 8168700, Fax +971 4 8835887

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**Polylite® 415 – 741E**

**PROPERTIES**

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

| Property   | Unit              | Value   | Test Method               |
|--|-------------------|---|---------------------------|
| Brookfield viscosity LVF sp 2/12 rpm                   | mpas              | 1100-1400   | ISO 2884-1999             |
| Viscosity - Cone & Plate                               | cPs               | 330 – 380   | ISO 2884-1999             |
| Acid number  | mgKOH/<br>g       | 20 - 25   | ISO 2114-1996             |
| Styrene Content  | % wt              | 38 ± 2  | B 070                     |
| Density  | g/cm <sup>3</sup> | 1.100   | BS 3900: Part<br>A12:1975 |
| Geltime:1% Norpol peroxide                             | min               | 40 – 100(adjusted<br>to ambient temp<br>conditions) | G020                      |
| Storage stability from date of Manufacture(at<br>23°C) | months            | 4   | G 180                     |

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**MECHANICAL DATA OF FILLED CASTING**

Fully post cured

| Property                    | Unit  | Value      | Test Method    |
|-----------------------------|-------|------------|----------------|
| Tensile Strength            | MPa   | 72 ± 5%    | ISO 527-1993   |
| Tensile Modulus             | MPa   | 3500 ± 10% | ISO 527-1993   |
| Tensile Elongation at Break | %     | 5.0 ± 20%  | ISO 527-1993   |
| Flexural Strength           | MPa   | 135 ± 5%   | ISO 178-1993   |
| Flexural Modulus            | MPa   | 3400 ± 10% | ISO 178-1993   |
| Barcol Hardness, 934-1      | 934-1 | 45         | ASTM D 2583-87 |
| Heat Distortion Temperature | °C    | 90 ± 5%    | ISO 75-1993    |

**RECOMMENDED PEROXIDE:**

All POLYLITE products are Quality Controlled with the specified Peroxide. However, alternatives are available and all users should be aware that a single Peroxide formulation cannot provide optimum results in all resin systems. The interaction between the Peroxide 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 Peroxide can vary greatly from those specified. It is, therefore, absolutely essential that the user evaluate each alternate Peroxide in each product before full-scale manufacture is started.

Through thorough laboratory work we have found that some types of Peroxide formulation (such as the acetyl acetones) can lead to distinct cured colour variation. We would, therefore, strongly recommend the use of a single peroxide (Norpol Peroxide No.1 / Butanox M-50) especially where consistent light colour are required for the finished articles.

Safety Data Bulletin No. 1 applies to PolyLite® 415 –741 E

**STORAGE**

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To ensure maximum stability and maintain optimum resin properties, POLYLITE resins should be stored in closed containers at temperatures below 25°C and away from heat sources and sunlight. All storage areas and containers should conform to local fire and building codes. Drum stock should be stored away from all sources of flame or combustion. Inventory levels should be kept to a reasonable minimum with first-in, first-out stock rotation.

**PACKAGING FORM**

- **Non-returnable 220 kg metal drums or**
- **Non-returnable 20.0 kg pails may be delivered on request**

**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 (Cobalt), AMINE (DMA), OR OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION.**

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