

TECHNICAL DATA SHEET



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1. PRODUCT NAME & DESCRIPTION

Allied Clear Surfboard Laminating Resin

2. BASE MATERIAL

Unsaturated polyester

2. GENERAL DATA & PROPERTIES

Product Description

Allied Clear Surfboard Laminating Resin is a low-reactivity, rigid unsaturated polyester laminating resin.

Intended Uses

Allied Clear Surfboard Laminating Resin is designed specifically for the manufacture of surfboards.

Allied Clear Surfboard Laminating Resin is a pre-accelerated resin (requiring addition of hardener only). Allied Clear Surfboard Laminating Resin is specially formulated to impart a very high degree of clarity to the laminate, and is UV-stabilized, allowing for improved weather resistance, and ensuring a good long-term appearance of the finished product.

Allied Clear Surfboard Laminating Resin is of a low viscosity, thus giving excellent glassfibre wet-out with minimal drainage. The low exotherm allows the resin to be used in the construction of thick laminates.

Liquid Properties

Colour

Clear - pale yellow

Viscosity (Brookfield) @ 25°C

400 - 500 cPs

Acid Value (mg KOH/g)

20 - 30

Solids Content

60 - 65 %

Geltime @ 25 °C using 1 phr MEKP

10 - 15 minutes

Physical Properties

Barcol hardness

40 - 45

Temperature of deflection (under load, 1.80Mpa)

55 °C

Water absorption (24 hr)

42 mg

Tensile strength

65 MPa

Tensile modulus

4550 MPa

Flexural strength

102 MPa

Flexural modulus

4110 MPa

Storage

Allied Clear Surfboard Laminating Resin should be stored in closed opaque containers. Exposure to sun light or temperatures in excess of 20°C may lead to premature gellation even in the absence of peroxide catalyst. Storage at 20°C under ideal conditions should yield a shelf life 6 months at least.

2. GENERAL DATA & PROPERTIES (Continued)

Curing Characteristics @ 25°C

Allied Clear Surfboard Laminating Resin requires only the addition of a hardener (catalyst) to start the curing process. Ideally the resin should be allowed to attain a temperature of at least 20 °C (preferably 25 °C) before being mixed for use. Curing should not be carried out at temperatures below 15°C as this affects the cure characteristics of the product. Catalyst levels should range between 1 and 2 parts per hundred (by mass of resin). Laminates made with Allied Clear Surfboard Laminating Resin should be post-cured in order to achieve long-term performance and optimum properties. Therefore, laminates should be allowed to cure at ambient temperature for a period of 24 hours following release from the mould. Post-curing for a further 3 hours at an elevated temperature (70 – 80 °C) should then be carried out.

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