

## Applications:

> EV4477 adhesive special vinyl ester based, thixotropic and per-accelerated bonding paste with no filler content.

## **Properties:**

- > Thixotropic Violet Paste
- Semi-Flexible Vinyl Ester Bonding Paste

PROPERTIES	Test Standard	Test Procedure	Value
Color & State	Visual	It is checked visually	Light Violet Color & Viscous Liquid
Viscosity	ASTM D 2196	Brookfield Viscometer, spindle 4, RPM 0.1	2,000,000
Lab Shearing	ISO 4587	FRP-FRP	10.8
Gel Time	ASTM D 3056	with 1.0 phr Akperox A60 @ 25°C 15-20	

**Composition of The Product**: EV4477 adhesive is a special semi-flexible vinyl ester based, thixotropic bonding paste with no filler content. It has special formulation optimized for effective bonding of composite parts. It can be used in marine, construction, GRP Pipe Installation, automobile, etc. In order to bond the composite to metals or wood, it must be tested and evaluated before use by the consumer. **Storage Conditions:** store in a tightly closed container, temperature 5-25 °C. Shelf life is reduced at higher temperatures. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light. Store in dark and in 100% light tight containers only. Keep away from ignition sources: flames, pilot lights, electrical sparks and sparking tools. No smoking. Store separately from oxidizing materials peroxides and metal salts.

**Stability:** Regarding storage Condition under above Details, the stability foEV4477 Adhesive is 3 months.

Safety: Material Safety Datasheets of the product is available on demand.

Supply Modes: EV4477 Adhesive can Supplied in 1,5 and 20 Kg Bucket.

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## **Gel Time Behavior at Different Temperature:**

@18°C	23-28 ′
@25°C	15-20 ´
@30°C	9-13′

Gel time measuring with MEKP-Akperox A60 1.0 phr.

Tensile Strength (MPa)	Min 80	ISO 527-2
Elongation at Break	Min 3.5	ISO 527-2
Heat Distortion Temperature (°C)	Min 105	ISO 75-2
Flexural Strength (MPa)	Min 120	ISO 178
Barcol Hardness	Min 35	ASTM D 2583
Glass Transition Temperature Tg	Min 120	ASTM D 3418

Materials used for curing are: (Cobalt Octoate ,1%- 1.0 phr, DMA 10% -0.5 phr, MEKP-Akperox A60 1.0 phr). These tests have been done on  $300\pm25$  cps). Curing time: 24 Hrs at room Temperature, 2 Hrs at 80°C, and 1 Hr 120°C.

## Water Absorption & Linear Shrinkage:

PROPERTIES	TEST VALUE	METHOD
Water Absorption (%)	≈ 0.22	ISO 62- Test Method -1
Linear Shrinkage (%)	≈ 1.5	Internal method

This test is done on linear sample with dimensions (1 cm  $\times$  1 cm  $\times$  100 cm). These tests have been done on 300±25 cps).

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