NORPOL FI 186 ADHESIVE

DESCRIPTION

NORPOL FI 186 Series are vinylester based adhesives designed for adhering polyester laminates. They create bond lines with good strength and toughness. Thicknesses of up to 20 mm can be applied in one operation without causing cracks during cure. NORPOL FI 186 Series does not contain indicator so it is recommended using peroxide containing a color indicator. FI 186 Series is suitable for machine application. It is recommended to run tests with the application equipment before starting the bonding job to ensure proper mixing of the peroxide.

FEATURES AND BENEFITS

- Pumpable with standard putty equipment from 5 or 45 gallon systems
- NORPOL FI 186 Series adhesive are pre-accelerated.
- Applies in a uniform thickness horizontally or vertically without sagging
- Non porous surface, suitable for vacuum bagging
- Available in 20 liters pails and 200 liters drum.

TYPICAL PROPERTIES (23°C / 73°F)

These values may or may not be manufacturing control criteria; they are listed for a reference guide only. Particular batches will not conform exactly to the numbers listed because storage conditions, temperature changes, age, testing equipment (type and procedure) can each have a significant effect on the test results. Putty with properties outside of these values can perform acceptably.

TESTS

Viscosity, Brookfield RV Spindle E @ 3rpm	525 000 – 650 000 cps
Gel time @ 2% CHM50	55-70 minutes
Density	1,10 -1,25 g /ml
Shelf Life	60 days

NORPOL FI 186 should be stored at 18-25ºC.
The product should be adjusted to 18-25ºC before use.

CURE:

It is recommended that gel time be checked in the customer's plant because age, temperature, humidity and catalyst will produce varied gel times. All data referencing gel or cure refers specifically to CHM50 @ 2,0 % @ 23°C. Do not use under 18°C.When the part reaches ultimate cure depends upon time, temperature and satisfactory catalization. Too much or too little catalyst can result in permanent under-cure, which cannot be overcome. Practically speaking, serviceable cure time will range from overnight from a week and occasionally longer due to circumstances. Small, properly calalized, thin laminates that do not exotherm and do not receive external heat may take months or years to achieve ultimate physicals. Sufficient external heat can reduce the cure time to less than a day.

STORAGE LIMITATIONS:

Vinylester has a shelf life of 60 days from date of manufacture when stored at 22° (73°F) or below, in a closed, factory sealed, opaque container, and out of direct sunlight. Fast cure resin (gel times less than 9.0 minutes) is stable for 45 days. The shelf life is cut in half for every 11°C (20°F) over 22°C (73°F).

SHIPPING:

Shipment is normally in lined 205 liters (45 imp. gallon) and/or 20 liters (4.4 imp. gallon) containers.

DISPOSAL:

Dispose of in accordance with local and provincial regulations. Do not incinerate closed containers. Incinerate in approved facilities only.

Safety information

All sales of products manufactured by Polynt Composites Canada Inc. and described herein, are made solely on condition that Polynt's customers comply with applicable health and safety laws, regulations and orders relating to the handling of our products in the workplace. Before using, read the following information, and both the product label, and Material Safety Data Sheet pertaining to each product.Most products contain styrene. Styrene can cause eye, skin and respiratory tract irritation. Avoid contact with eyes, skin and clothing. Impermeable gloves, safety eyewear and protective clothing should be worn during use to avoid skin and eye contact. Wash thoroughly after use. Styrene is a solvent and may be harmful if inhaled. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Extended exposure to styrene at concentrations above the recommended exposure limits may cause central nervous system depression causing dizziness, headaches or nausea and, if overexposure is continued indefinitely, loss of consciousness, liver and kidney damage.Do not ingest or breathe vapor, spray mists or dusts caused by applying, sanding, grinding and sawing products. Wear an appropriate NIOSH/MSHA approved and properly fitted respirator during application and use of these products until vapors, mists and dusts are exhausted, unless air monitoring demonstrates vapors, mists and dusts are below applicable exposure limits. Follow respirator manufacturer's directions for respirator use. The International Agency for Research on Cancer (IARC) reclassified styrene as Group 2B, "possibly carcinogenic to humans." This revised classification was not based on new health data relating to either humans or animals, but on a change in the IARC classification system. The Styrene Information and Research Center does not agree with the reclassification and published the following statement: Recently published studies tracing 50,000 workers exposed to high occupational levels of styrene over

a period of 45 years showed no association between styrene and cancer, no increase in cancer among styrene workers (as opposed to the average among all workers), and no increase in mortality related to styrene.

Styrene is classified by OSHA and the Department of Transportation as a flammable liquid. Flammable products should be kept away from heat, sparks, and flame. Lighting and other electrical systems in the work place should be vapor-proof and protected from breakage. Vapors from styrene may cause flash fire. Styrene vapors are heavier than air and may concentrate in the lower levels of molds and the work area. General clean air dilution or local exhaust ventilation should be provided in volume and pattern to keep vapors well below the lower explosion limit and all air contaminants (vapor, mists and dusts) below the current permissible exposure limits in the mixing, application, curing and repair areas.

Most polyester/vinylester products contain hazardous ingredients. To determine the hazardous ingredients present, their applicable exposure limits and other safety information, read the Safety Data Sheet for each product (identified by product identifier) before using. If unavailable, these can be obtained from your Polynt representative or from: Polynt Composites Canada Inc. 905 495-0606

April 2026

FOR INDUSTRIAL USE AND PROFESSIONAL APPLICATION ONLY.
KEEP OUT OF REACH OF CHILDREN.

Polynt Composites Canada Inc.
29 Regan Road, Brampton, Ontario L7A 1B2 905-495-0606
2650 T-Casgrain, Drummondville Québec J2A 4J5 819 477-4516

Disclaimer and limitation of liability

The products sold hereunder shall meet seller's applicable specifications at the time of shipment. Seller's specifications may be subject to change at any time without notice to buyer. Buyer must give seller notice in writing of any alleged defect covered by this warranty (together with all identifying details, including the product code(s), description and date of purchase) within thirty (30) days of the date of shipment of the product or prior to the expiration of the shipment's quality life, whichever occurs first. The warranty described herein shall be in lieu of any other warranty, express or implied, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose, there are no warranties that extend beyond the description on the face hereof. The buyer's sole and exclusive remedy against seller shall be for the replacement of the product or refund of the purchase price in the event that a defective condition of the product should be found to exist by seller. No other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available to the buyer. The sole purpose of this exclusive remedy shall be to provide buyer with replacement of the product or refund of the purchase price of the product if any defect in material or workmanship is found to exist. This exclusive remedy shall not be deemed to have failed its essential purpose so long as seller is willing and able to replace the defective products or refund the purchase price.

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of the material for the use contemplated, the manner of use and whether the suggested use infringes any patents is the sole responsibility of the buyer.