

# ADDupol™

## A008-WTA

### GENERAL PURPOSE LAMINATING RESIN

**DESCRIPTION** A008-WTA is a pre-accelerated, thixotropic, rigid, medium-reactivity, unsaturated polyester resin. A008-WTA has good glass-fibre wetting for ease of application and has good mechanical properties when cured.

**APPLICATIONS** A008-WTA is designed for general purpose bulk lamination by hand or spray lay-up.

CHARACTERISTICS		
Thixotropic	Excellent sag resistance.	
Waxed	Lower styrene emissions. Good inter-laminar adhesion. Tack-free curing.	
Pre-accelerated	Requires addition of catalyst only.	

LIQUID PROPERTIES	PROPERTY	SPECIFICATION
	Viscosity @ 25 °C (Cone & Plate, poise)	2.8 – 3.8
	Geltime @ 25 °C (2% m/m Luperox K1, minutes)	15 – 20
	Thixotropic Index	1.2 – 1.6
	Specific gravity (g/cm <sup>3</sup> )	1.10 – 1.12
	Non-volatile content (%)	56 – 62
	Acid value (mg KOH/g)	16 – 32
	Liquid appearance	Hazy, opaque pink
	Stability in the dark @ 25 °C (months)	6

**CURING CHARACTERISTICS** A008-WTA should be allowed to attain workshop temperature (18 - 25 °C) before use. Drums should be rolled or mixed before use, in case any settlement of the thixotrope has taken place, and for dispersing the wax additive. The recommended catalyst is Luperox K1 at 2% by resin mass to start the curing reaction. The ambient temperature and amount of catalyst will control the geltime of the resin.

Under no circumstances should less than 1,0% MEKP be used to cure unsaturated polyesters. Ensure that the catalyst is thoroughly dispersed in the resin to prevent uneven or undercured areas which may lead to product failure. Curing should not be carried out below 15 °C.

**POST-CURING**

Curing at ambient temperatures renders laminates suitable for most applications. For optimum performance however, post-curing can be performed on the laminates. Allow for a maturing period of 24 hours. Thereafter perform standard post-curing for 3 hours at 80°C or alternatively 16 hours at 40°C.

**PHYSICAL PROPERTIES**
**Properties of a Cured A008-WTA Unfilled Casting**

Performed on a 3 mm unfilled casting, post-cured for 3 hours at 80°C, and tested in accordance with SANS 713-2000 and BS 2782.

Deflection temperature under load (264 psi, °C)	80
Tensile strength (MPa)	75
Flexural strength (MPa)	80
Flexural modulus (MPa)	4 000
Volumetric shrinkage (%)	6.0
Elongation at break (%)	2.5
Barcol (GYZJ 934-1) hardness	45

**Properties of a Cured A008-WTA CSM Laminate**

Performed on a chopped strand glass mat laminate. The laminate was cured for 7 days at 23°C before testing.

Flexural strength @ ambient (MPa)	625
Flexural strength @ HDT (MPa)	540
Glass content (%)	60 – 65

**PIGMENTS AND FILLERS**

A008-WTA can be pigmented with up to 5% Pigment Paste. It is advisable to use lower quantities to have the minimum affect on laminate properties, while still achieving adequate hiding power.

The affect of fillers on the geltime and cure rate of the resin should be determined before commencing with full-scale production. Fillers will also affect the physical properties of the laminate.

**STORAGE**

A008-WTA should be stored in closed containers away from direct sunlight and other heat sources. The recommended storage temperature is below 25°C. In case of outside storage, containers should be stacked horizontally to avoid the ingress of water.

**PACKAGING**

A008-WTA is supplied in 225kg non-returnable drums.

**HEALTH AND SAFETY**

A Material Safety Data Sheet can be obtained through your ADD Resins representative.

**ADD RESINS BRANCHES AT:  
 JOHANNESBURG / DURBAN / CAPE TOWN**

## POLYESTER SAFETY INFORMATION

All sales of products supplied by ADD Resins (Pty) Ltd and described herein are made solely on condition that our customers comply with applicable health and safety laws, regulations and orders relating to the safe 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 polyester 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 personal protective equipment 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 breathe or ingest vapour, spray mists and dusts caused by applying, sanding, grinding and sawing polyester products. Wear an appropriate OSHA approved, properly fitted respirator during application and use of these products until vapours, mists and dusts are exhausted, unless air monitoring demonstrates vapours, mists and dusts are below applicable exposure limits. Follow respirator manufacturer's directions for respirator use.

The International Agency for Research on Cancer (IARC) has reclassified styrene as Group 2B "possibly carcinogenic to humans". This new classification is 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 Centre does not agree with the reclassification and has 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 Transport as a flammable liquid. Flammable polyester products should be kept away from heat, sparks and flame. Lighting and other electrical systems in the workplace should be vapour-proof and protected from breakage.

Vapours from styrene may cause flash fire. Styrene vapours are heavier than air and may concentrate in the lower levels of moulds and the work area. General clean air dilution or local exhaust ventilation should be provided in volume and pattern to keep vapours well below the lower explosion limit and all air contaminants (vapour, mists, dusts) below the current permissible exposure limits in the mixing, application, curing and repair areas.

Some polyester products may contain additional hazardous ingredients. To determine the hazardous ingredients present, their applicable exposure limits and other safety information, read the Material Safety Data Sheet for each product (identified by product code) before using.

**FIRST AID:** In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If affected by inhalation of vapours or spray mist, remove to fresh air. If swallowed, get medical attention.

Polyester products have at least two components that must be mixed before use. Any mixture of components will have hazards of all components. Before opening the packages, read all warning labels. Observe all precautions.

Keep polyester containers closed when not in use. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Emptied containers may retain hazardous residue. Do not cut, puncture or weld on or near these containers. Follow container label warnings until containers are thoroughly cleaned or destroyed.

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

## 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 or 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.

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.