

TECHNICAL DATA SHEET

R505PA

Iso/Teraphthalic Laminating Resin

Revised: 28/03/2025

APPEARANCE

Opaque Blueish

DESCRIPTION

R505PA is a hybrid isophthalic/teraphthalic based, pre-accelerated, unsaturated polyester resin suitable for the manufacture of laminates in a wide range of applications where water and mild chemical resistant resin is required. It is ideally suitable as a lay-up resin in pool lining applications, boat building and mild chemical conditions.

FABRICATION INFORMATION

Hand lay-up, or spray-up.

SUITABLE APPLICATIONS

Pool lining, boat building and applications where chemical resistant resin and high impact products are required. Suitable for thick layups and has low water adsorption.

TYPICAL LIQUID RESIN PROPERTIES

Viscosity @ 25°C	400 – 500 cps
Thixotropic index	1.4 – 2.1
Solid content	58.5 - 62.5
Curing Characteristics	
Mass of resin	100g
Accelerator Quantity	Pre-accelerated
Catalyst Type	MEKP (9% Active O ₂)
Catalyst quantity	2 parts per 100 neat resin
Gel time @ 25°C @ 2%	10 - 15 minutes
CuroxM312	

TYPICAL PHYSICAL PROPERTIES:

Typical properties of R505PA	
Prepared, post-cured in accordance with SABS 713-1974, as amended	
Temperature of deflection – under load (1.80MPa), °C	70 - 75
Barcol (GYZJ 934-1) hardness	40 - 50
Tensile strength, MPa	77
Tensile Modulus MPa	3400
Elongation @Break %	3-4

SUBSTANCE IDENTITY NUMBER

UN 1866

MARKING

UNSATURATED POLYESTER (UP)

Packaging

R505PA is normally supplied in 225kg new steel drums with close top, as well as 25kg and smaller.

Other Version

R505PA can be supplied as a white version i.e. **R505P1**,

SHELF LIFE

4 Months from production date when stored as indicated.

MATERIAL SAFETY, STORAGE and HANDLING:

The resin should be stored below 25°C, away from heat sources, direct sunlight and rain, in a closed opaque container.

- Polyester resin solutions contain volatile and flammable monomers such as styrene (Flash Point 32°C). They are subject to the Highly Flammable Liquids and Liquid Petroleum Gases Regulations 1972.
- All polyester resins should be handled and used in well ventilated, flame proof areas.
- It is preferable to wear gloves and goggles to guard against any skin / eye irritation arising from the presence of styrene.
- AVOID DIRECT MIXING OF ANY ORGANIC PEROXIDE (CATALYST) WITH METAL SOAPS, AMINE OR ANY OTHER POLYMERISATION
- ACCELERATOR OR PROMOTER, AS VIOLENT DECOMPOSITION WILL RESULT! Under no circumstance must accelerators be mixed with peroxide catalysts directly as the mixture can explode. A Material Safety Data Sheet is available from your Atlin Chemicals representative. Make certain that you obtain a copy and that its contents are understood before work commences.

For any additional information, please contact Atlin Chemicals at one of our branches:

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