



# TECHNICAL DATA SHEET

## Corrosion Resistant, Isophthalic Resin LRPOL024-ISO L500

### General Description:

**LRPOL024-ISO L500** series resin is a thixotropic, promoted, corrosion resistant isophthalic polyester. The resin has excellent corrosion resistance, high strength and high heat deflection temperature.

### Special Applications :

The raw materials used in the manufacture of the resins stated below are listed as acceptable in FDA regulation Title 21 CFR 177.2420 for repeated use in contact with food, subject to the user's compliance with the prescribed limitations of that regulations.

### Applications and Use

**LRPOL024-ISO L500** series resins can be used for hand lay-up and spray-up applications such as fabrication of fume hoods and ducts, tanks, pipe, storage tank repairs and linings in applications where corrosion resistance and FDA food application resins are required.

### Typical Properties for LRPOL024-ISO L500:

Table 1: Specification of Liquid Resin				
No.	Property	Test Method	Unit	Value
1	Viscosity at 25°C ( LV 3 , Rpm 60 )	ISO 2555:2018	mPa.s	425-570
2	Thixotropic Index LV 3 6/60	-	-	2.5-3.0
3	Density at 23°C	ISO 1675:2022	g/mL	1.1-1.16
4	Acid Value	ISO 2114:2000	mg KOH/g	<30
5	Non - Volatile content	ISO 3251:2019	%	50.5-54.5
6	Gel Time @ 25°C	ASTM D2471-99 ISO 2535:2001	Minutes	9:30-11:00
7	Gel to Peak Time		Minutes	5:00-10:00
8	Peak Exothermic Temperature		°C	185-215

Note :Properties can be adjusted based on the customer's requirements.

### Contacts us:

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No.	Property	Test Method	Unit	Value
1	Tensile Strength	ISO 527-1:2019 ISO 527-2: 2012	MPa	Min 72
2	Tensile Modulus		MPa	Min 3793
3	Elongation at break		%	Max 2.2
4	Flexural Strength	ISO 178:2019	MPa	Min 140
5	Flexural Modulus		MPa	Min 3724
6	Barcol Hardness	ASTM D 2583-13a (934-1)	-	Min 42
7	Heat Deflection Temperature † (1.80 MPa)	ISO 75-1:2020 ISO 75-2:2013	°C	Max. 102

**Note :** Properties can be adjusted based on the customer's requirements.

#### Shelf life and Storage:

To ensure maximum stability and maintain resin properties within the desirable range, UPR should be stored in closed containers at temperatures below 25 °C, and away from heat sources such as, but not limited to, direct sunlight, steam pipes or furnaces. Under proper storage conditions the minimum shelf-life performance is estimated at six months, provided that the product is stored in the original, unopened container. Shelf life decreases with increasing storage temperature, or when it is kept near a heat source or direct sunlight.

#### Typical Curing Characteristics and Recommendations

Resin (g)	Catalyst	Temperature °C	Gel Time minutes	Peak Exothermic
100g	MEKP 50% (Butanox M50) – 1.5%	25 °C	9:30-11:00	185°C - 215°C

**Note :** Properties can be adjusted based on the customer's requirements.

**LRPOL024-ISO L500** should be processed at room temperature (18-25°C) . Lower temperature have an adverse effect om proper curing . Especially when stored in the presence of air ,there may be an increase in the gel time ,although this can be compensated for by increasing the amount of curing agent.

#### Standard Packaging:

The standard packaging available are standard intermediate bulk containers (IBC), 220 kg stainless steel drums and trailer tanks. However, UPR can be packaged in different quantities. as per the request of the customer.

**Dot Label Required: Flammable Liquid**

#### Precaution for handling:

Laffan Resin Production Factory (LRPF) maintains and regularly updates the Material Safety Data Sheet (MSDS) of all its products. All supervisory personnel and employees expected to be working with the resin must be provided with the MSDS. Due attention should be given to the precautions for handling chemicals provided in the MSDS prior to any use of this product.

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