

TECHNICAL DATA SHEET

ISO NP GELCOATS AND FINISHCOATS LRPOL022-NG1

General Description: Page | 1

Iso/neopentyl resin-based gelcoat. It shows a better resistance to moderately alkaline solutions, organic solvents, and water, even at high temperatures. It also contains a UV stabilizer. It shows an excellent resistance to light and a good flexibility during production. It is ideal to use in sailing, swimming pools and for all those applications where wear resistance is essential.

Applications and Uses:

Spray Grade – For normal moulding the application of ISO NP Gelcoat should sprayed at a wet film thickness of between 0.5 - 0.8mm wet film. Generally, between 500- 700gm/m² of gelcoat will give you the required thickness. A gelcoat cup gun or high-quality spray gun is recommended with a spray tip of around 2 - 6mm.

Brush Grade – When using ISO NP as a Finishcoat or Topcoat ensure that the resin and ambient temperature are in specified ranges and correct catalyst levels are used. Applying by either brush or roller. Finishcoat should be kept to a wet film thickness of 0.8-2.0mm. Generally, between 600-800gm/m² of Finishcoat will give you the required coverage.

Moulding Information:

- Hand lay up
- Spray up

Typical Properties for LRPOL022-NG1:

Table 1: Specification of Liquid Resin								
No.	Property	Test Method	Unit	Value				
1	Viscosity at 25°C (LV4 , Rpm 12 , 120sec)	ISO 2555:2018	mPa.s	Spray: 3000-6000 Brush : 12000-15000				
2	Stability	-	Months	2				
3	Specific Gravity	ISO 1675:2022	-	1.45-1.70				
4	Gel Time @ 25°C	ASTM D2471-99	Minutes	10-20				
5	Gel to Peak Time	ISO 2535:2001	Minutes	12-24				
6	Peak Exothermic Temperature		°C	140-195				

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







Table 2: Specification of Cured Resin								
No.	Property	Test Method	Unit	Value				
1	Tensile Strength	ISO 527-1:2019	MPa	55.3				
2	Elongation at break	ISO 527-1:2019	%	4.65				
3	Flexural Strength	ISO 178:2019	MPa	102				
4	Barcol Hardness	ASTM D 2583-13a (934-1)	-	>35				
5	Heat Deflection Temperature † (1.80 MPa)	ISO 75-1:2020 ISO 75-2:2013	°C	63				

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

Shelf life and Storage:

To ensure maximum stability and maintain gelcoat properties within the desirable range, UPR gelcoat 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 two 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	Butanox M50/60 1% - 2%	25 °C	10-20	140°C - 195°C

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

LRPOL022-NG1 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 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, UIPR 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.



