

# GELCOAT NG Hydro-2

decorative and protective layer in laminates



**GELCOAT NG HYDRO-2** based on NPG isophthalic resin with elevated resistance to water and sunlight, intended for manual application (Gelcoat NG Hydro-2 P), and spray application with high-viscosity (Gelcoat NG Hydro-2 FP) and low-viscosity (Gelcoat NG Hydro-2 Psp) options. Available in a range of white according to RAL and in-house shade options. Lloyd's Register certified.

#### APPLICATIONS:

- Coating of products made with unsaturated polyester resins, mainly polyester-glass laminates, to provide resistance to water and UV light, including sunlight
- Forms a stable surface resistant to weather conditions, including chemically polluted environments. Characterized by very high ageing resistance
- Intended for the manufacture of boats, vessels and floating equipment for use at freshwater reservoirs

#### PROPERTIES:

- High resistance to UV exposure, including sunlight
- Very high ageing resistance to ensure a longer product lifecycle
- Chemical resistance – resistance to aggressive environments
- Low polymerization shrinkage to eliminate points of leakage and stress within the material
- Good venting performance – no air bubbles in the finished product
- Processing performance to maintain inherent excellent properties post application

#### BASIC PARAMETERS:

PARAMETER	UNIT	GELCOAT NG HYDRO-2 P	GELCOAT NG HYDRO-2 FP	GELCOAT NG HYDRO-2 PSP
VERSION	-	manual	spray	spray
VISCOSITY	mPa·s	45000 ÷ 85000	40000 ÷ 80000	32000 ÷ 44000
GEL TIME WITH 2% MEKP	min	12 ÷ 25	12 ÷ 25	12 ÷ 25

Viscosity, sp.27/1 rpm., at 25 °C, Gel time - 25 °C, medium-reactive MEKP

#### STRENGTH PERFORMANCE:

PARAMETER	UNIT	GELCOAT NG HYDRO-2 P	GELCOAT NG HYDRO-2 PSP
FLEXURAL STRENGTH	MPa	80	80
FLEXURAL MODULUS	MPa	4800	4800
STRESS AT BREAK	MPa	38	50
TENSILE MODULUS	MPa	4800	4800
HDT	°C	84	88
BARCOL	°B	48	48
WATER ABSORPTION AFTER 28 DAYS	%	0,5	0,5

Seasoning: 2h at 80 °C. Measurement of water absorption – tests seasoned for 16h at 40 °C, 24h at room temperature

#### AGEING RESISTANCE

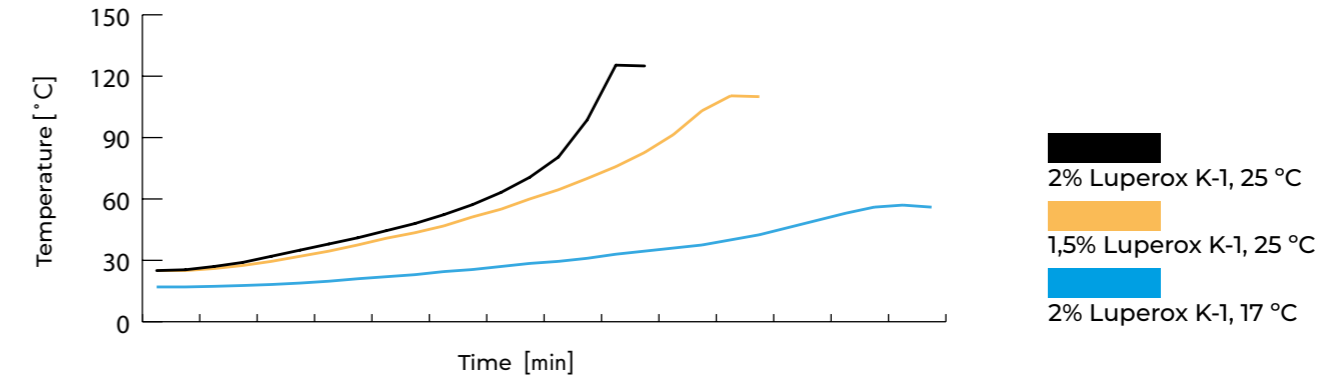
##### FLORIDA 1-YEAR<sup>1</sup> TEST PROTOCOL; ENVIRONMENTAL TEST CHAMBER:

PARAMETER	CHANGE
BRIGHTNESS, L*	no change
COLOR CHANGE, DB*	0,5 ÷ 0,9
COLOR CHANGE, ΔE	0,5 ÷ 1
IB CIE (WHITENESS INDEX)	2 ÷ 4

##### EXPOSURE TO WEATHER CONDITIONS, 200 DAYS:

PARAMETER	CHANGE
BRIGHTNESS, L*	no change
COLOR CHANGE, DB*	0,2
COLOR CHANGE, ΔE	0,5
IB CIE (WHITENESS INDEX)	no change

#### SAMPLE CURING SYSTEM FOR GELCOAT NG HYDRO-2:



## METHOD OF USE:

For processing, use only the gelcoat with a temperature of at least 18 °C. A good cure requires an ambient temperature of at least 20 °C and low air humidity. Preparation of the gelcoat for processing:

- Mix the gelcoat thoroughly in the factory container
- Take the amount as required for the job
- To the gelcoat add a measured amount of medium-active MEKP curing agent at a ratio of 1.5-2% and mix thoroughly

The gel time can be controlled by changing the amount of curing agent. However, do not use a ratio less than 1.5% and more than 2.5% of MEKP.

If necessary (long storage period), a small amount of cobalt siccative at 10% Co (approx. 0.5 mL/kg) can be added to the gelcoat before dosing the curing agent. Use standard MEKP-type curing agents for unsaturated polyester resins. In order to achieve full resistance to weather conditions, the final product should be post-cured.

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