

**TECHNICAL INFORMATION**

# Gelcoat

# NG Hydro

## Application

**Gelcoat NG Hydro** is applied in production of polyester – glass laminates and other polyester products to form an outer, aesthetic appearance coating. Recommended for production of goods of high quality with long time of usage, exposed to the effect of atmospheric conditions, water, high temperature, UV radiation, can be exposed to environment polluted by chemical media etc.

**Gelcoat NG Hydro P** – standard gelcoat for hand lay-up

**Gelcoat NG Hydro P sp** – standard gelcoat for spray lay-up

**Gelcoat NG Hydro FP** – high viscosity gelcoat for spray lay-up.

## Gelcoat characteristics

**Gelcoat NG Hydro** is based on isophthalic - NPG polyester resin, in white version according to RAL system or at request of customer according to the pattern.

### Advantage of using:

- High water resistance
- High UV resistance, included sunlight
- Chemical resistance,
- Low shrinkage,
- Good deaeration and easy processing.

## Typical parameters

### Gelcoat NG Hydro P

Parameter	Unit	Value
Viscosity	mPa	50 000 ÷ 75 000
Gel time with 2% MEKP	min	8 ÷ 16
Gel time with 1,5% MEKP	min	12 ÷ 20

### Gelcoat NG Hydro FP

Parameter	Unit	Value
Viscosity	mPa	40 000 ÷ 80 000
Gel time with 2% MEKP	min	8 ÷ 16
Gel time with 1,5% MEKP	min	12 ÷ 20

### Gelcoat NG Hydro P sp

Parameter	Unit	Value
Viscosity	mPa	28 000 ÷ 44 000
Gel time with 2% MEKP	min	8 ÷ 16
Gel time with 1,5% MEKP	min	12 ÷ 20

\*Viscosity, sp. 27/rpm. 1 at 25°C

\*\*Gel time at 25°C, MEKP medium reactive, eg. Luperox® K-1 S

## Storage conditions

**Gelcoat** should be stored in close package in a dry, shady and cool places, adapted for storing flammable materials, at temperatures not exceeding 25°C.

## Processing conditions

**Gelcoat should be mix thoroughly before use.**

Required temperature of gelcoat before processing is min. 16°C. Ambient temperature above 18°C and low air humidity provide good curing conditions. The best curing conditions are obtained using medium reactive 2% MEKP as hardener. It is possible to adjust the gel time by varying the amount of hardener in the range of 1 – 2 %. After long storage time it is recommended to control of curing time – if it is the need – should be added 0,4 ÷ 1 ml Cobalt10% / 1kg of gelcoat.

**Luperox®** is the trade name registered for products of **ARKEMA** company.

Data and suggestions included in this document are on the basis of our own tests and are considered by us as reliable. However, we cannot take any responsibility for actions and losses directly or indirectly resulted from using our products. User should check the product quality, safety and properties before its using.

### Note:

The information does not substitute Material Safety Data Sheet or Technical Specification, which are superior documents and are available on the customer's request.

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**Typical mechanical parameters**

Parameter	Unit	Value
<b>Flexural strenght</b> acc. to ISO 178	<b>MPa</b>	<b>82</b>
<b>Flexural modulus</b> acc. to ISO 527	<b>MPa</b>	<b>4600</b>
<b>Tensile modulus</b> acc. to ISO 527	<b>MPa</b>	<b>4700</b>
<b>Stress at break</b> acc. to ISO 527	<b>MPa</b>	<b>37</b>
<b>Heat deflection temperature (HDT)</b> acc. to ISO 75	<b>°C</b>	<b>80</b>
<b>Barcol hardness</b> acc. to ASTM /D 2583-07	<b>°B</b>	<b>48</b>
<b>Water absorption after 10 days</b>	<b>%</b>	<b>0,25</b>
<b>Water absorption after 28 days</b>	<b>%</b>	<b>0,42</b>
<b>Guarantee period</b>	<b>month</b>	<b>3</b>

Mechanical parameters: post-curing for 2h at 80°C.  
 Water absorption : post-curing for 16h at 40°C + 24h at room temperature.

**Aging resistance**
**Test "Floryda – 1 year"; climatic chamber**

Parameter	Change
Brightness, L*	<b>lack of change</b>
db*	<b>0,5 ÷ 0,9</b>
dE*	<b>0,5 ÷ 1</b>
IB CIE (whitness index)	<b>2 ÷ 4</b>

**Exposure to atmospheric condition**

Parameter	Change
Brightness, L*	<b>lack of change</b>
db*	<b>0,2</b>
dE*	<b>0,5</b>
IB CIE (whitness index)	<b>Lack of change</b>

**Reactivity of Gelcoat NG Hydro**
