

1- DEFINITIONS

NORD COAT PROTECTOR is a barrier coat based on vinyl ester resin developed for application behind gel coats, reference GC 188, 195, 795. It can be used for marine, swimming pool and industrial applications.

It gives a very good surface finish by blocking fibre patterning, and also possesses an excellent hydrolysis resistance to prevent osmosis.

2- CHARACTERISTICS

- ◆ Thixotropic, pre-accelerated gel coat.
- ◆ The gel coat can be cured at ambient temperature with the addition of a MEKP catalyst (type Butanox M50)
- ◆ Low density
- ◆ Only available in a spray version
- ◆ Colour change mechanism to indicate state of cure
- ◆ Application with a cup gun (nozzle 2.5 to 2.8 and pressure 3 bars)
- ◆ Application Airless machine (pressure 3 bars)

3- LIQUID PROPERTIES OF THE GEL COAT

Viscosité Brookfield (ISO2555 - 20°C – sp5)	5 rpm 180 +/- 30 mPa.s 50 rpm 28 +/- 3 mPa.s
Density (ICON 012)	0.94 - 0.98 g/cm ³
Solids (ICON 003)	62 +/- 2%

Gel time (20°C – 2 ml MEKP on 100gr)	14 +/- 2 minutes
Appearance/colour	grey

4- POLYMERISATION CHARACTERISTICS

Gel time on 100g

	15°C	20°C	25°C	30°C
1ml MEKP	28 min	15 min	12 min	6.5 min
1.5 ml MEKP	19 min	13 min	10.5 min	6.5 min
2ml MEKP	17 min	12 min	10 min	6.5 min

The values at 15°C are given only as an indication, it is recommended to use the product at a temperature between 18 and 25°C.

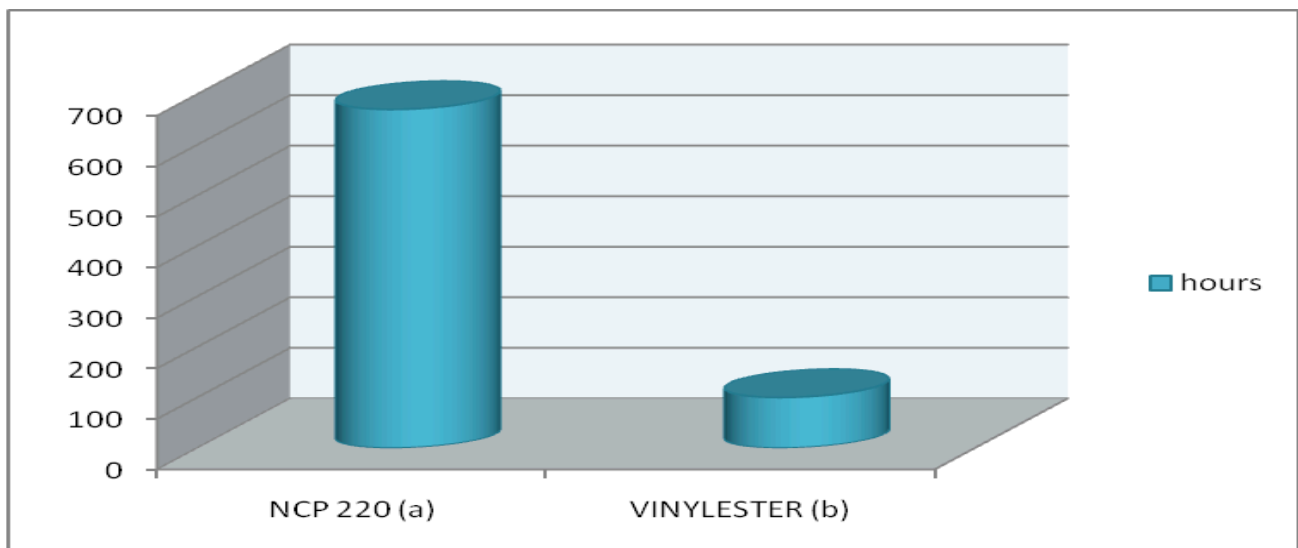
All these results are obtained from tests in our laboratory. Nord Composites cannot be responsible for moulds and fabricated parts made with NORD COAT PROTECTOR NCP 220, if the application conditions are not followed. The user must make sure beforehand that this system is appropriate for the application. We guarantee the conformity of our products with the specifications given above. We do not accept any responsibility for damage or loss caused by a misuse of this product.

5- APPLICATION INSTRUCTIONS

- ◆ It is important to mix **NORD COAT PROTECTOR 220** before use.
- ◆ To obtain an optimal polymerization, the amount of catalyst should be between 1% et 2% according to the size of the part to be made and to the type of application (airless machine or cup gun).
- ◆ To achieve an optimum result, we recommend an application of **NCP 220** behind the gel coat, well cured, with a thickness of between 800 to 1000.
- ◆ Ensure that the **NCP 220** is well polymerized (45 minutes to 1hour at ambient temperature 20°C) before the application of the polyester resin laminate layers to produce the part.
- ◆ It is possible to apply the **NCP 220** on to the gel coat wet on wet.

6- HYDROLYSIS RESISTANCE at 80°C

COMPARISON OF OSMOSIS RESISTANCE WITH DIFFERENT LAMINATING METHODS



- (a) - 500 microns of GC Iso/npg reference GC 795
- 800 microns of NCP 220
- 3 layers 450gm emulsion mat, with orthophthalic resin reference R988V
- (b) - 500 microns of GC Iso/npg reference GC 795
- 1 mat 100gm +2 mats 300gm powder with vinyl ester resin
- 3 layers 450gm emulsion mat, with orthophthalic resin reference R988V

The samples were post cured for 24hrs at ambient, plus 3hrs at 80°C.

The table shows that with the barrier coat GC 220 (a) the osmosis resistance is longer than 600 hours then with the vinyl ester laminate several blisters appear at 100 hours.

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 NORD COMPOSITES	TECHNICAL DATA SHEET	NCP 220 RC NORD COAT PROTECTOR NTG 142C - 30/01/2008
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7- PACKAGING

Available in cans of 20 kg or drums of 180 Kg

8- STORAGE CONDITIONS

Shelf life : 3 months

Barrier coat reference **NORD COAT PROTECTOR 220** is subject to the Highly Flammable Liquids Regulations. The resin should be stored under cool conditions in closed, opaque containers at a temperature not exceeding 25°C. Avoid exposure to heat sources such as direct sunlight.

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