

1 CHARACTERISTICS

Skin coat **NORESTER® 842** is hybrid vinylester resin, developed to be laminated behind our vinylester mold gels coat (**GC206** or **207**) or our gels coat for pieces of infusion, to obtain a good surface finish without fibre patterning.

- Thixotropic, pre-accelerated and pre-promoted resin.
- Resin cures at room temperature by addition of MEKP catalyst (Butanox M50 type).
- Ready to use product.

2 PROPERTIES OF THE LIQUID RESIN

Aspect	Beige liquid
Brookfield viscosity (ISO 2555 - 23°C - sp3)	5 rpm : 2800 - 3800 cP 50 rpm : 1000 - 1200 cP
Specific gravity (ICON 012)	1.24 - 1.28 g/cm ³
Gel time (ICON 002) (23°C - 2% MEKP on 100 g)	13 - 21 minutes
Non volatile content (ICON 003)	64 - 66 %
Peak Exotherm (23°C - 2% MEKP on 100 g)	24 - 34°C
Peak time (23°C - 2% MEKP on 100 g)	140 - 170 minutes

3 MECHANICAL PROPERTIES OF THE CURED RESIN

Flexural strength * (ISO 178)	141.2 MPa
Tensile strength * (ISO 527)	85.5 MPa
Elongation at break * (ISO 527)	4.66 %
Temperature of deflection under load °(HDT) (ISO 175)	98°C
Barcol hardness * (ASTM 2583)	45 (après 24h)

* Mechanical tests realised on a laminate made with 1 mat 100 g/m² and 2 mats 300 g/m².

° Pure resin post cured 3 hours at 80°C.

Gel time according to catalyst rate and temperature:

	15°C	20°C	25°C	30°C
1 mL MEKP	67 min	37 min	26 min	15 min
1.5 mL MEKP	47 min	30 min	18 min	12.5 min
2 mL MEKP	40 min	22 min	16 min	11 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.

IMPORTANT

All of the results obtained according to trials in our laboratory. However, we don't be responsible of manufactured parts with the resin **NORESTER® 842**, if the application conditions specified are not respected.

It is imperative that the user must also ensure that his application and his process are appropriate for this product to be used. We hereby the conformity of our products with the above specifications. We cannot be responsible for any damage caused by misuse of this product or use of the product for an application not covered in the design.

4 VERSIONS

This resin is available in long gel time version, **R842LGT** with a gel time of 25 - 33 minutes, a peak time of 140 - 170 min and a peak exotherm of 37 – 47°C (23°C – 2% MEKP on 100 g). This version is stable for **3** months from date of production.

5 RECOMMENDATIONS BEFORE USE

- Mix the resin well before use.
- To obtain an optimum curing and according to mold or piece size realized, the catalyst rate must be between:
 - 1 to 1.5% for contact application
 - 1.25 to 2% for spray machine
- Contact or spray application : to obtain optimum results, we advise you to laminate behind the vinylester mold gel coat (**GC206** or **207**), well cured, the structure of the laminate with **NORESTER® 842**:

2 mats powder 100 g/m², 2 mats powder 300 g/m²

Laminate the 4 layers wet on wet. Wait until this laminate is well cured (about 3 hours at room temperature) before laminating the layer of resin mold, reference **R2000**, **R2000/50** or **R2550NV**.

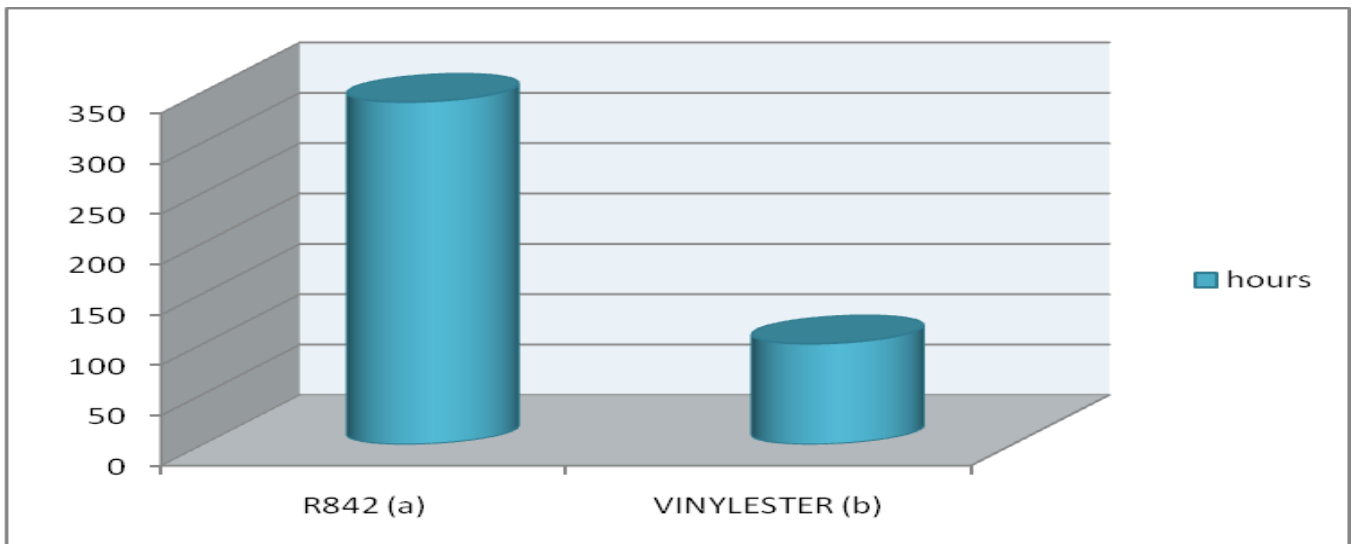
- Marine infusion : we advise you to laminate behind the marine gel coat **GC795**, well cured, the structure of the laminate with **NORESTER® 842**:

2 mat powder, 100 g/m² for all the hull, 2 mat powder, 300 g/m²

Rq: It is possible to laminate the 2 mats layers wet on wet. Be sure that the laminate is well cured before continuing with more lamination.

6 HYDROLYSIS RESISTANCE AT 80°C

COMPARISON OF OSMOSIS RESISTANCE WITH DIFFERENT LAMINATING METHODS



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- (a) - 500 microns of Gel coat Iso/npg ref **GC795**
- 1 mat 100 g/m² + 2 mats 300 g/m² powder, with skin coat **NORESTER® 842**
- 3 mats 450 g/m² emulsion with orthophthalic ref **NORESTER®988V**

- (b) - 500 microns of Gel coat Iso/npg ref **GC795**
- 1 mat 100 g/m² + 2 mats 300 g/m² powder, with vinylester resin
- 3 mats 450 g/m² emulsion with orthophthalic ref **NORESTER®988V**

The samples were post cured for 24 hours at room temperature then 3 hours at 80°C

The table shows that with the skin coat **NORESTER®842** (a) the osmosis resistance at 80°C is longer than 300 hours then with the vinyl ester laminate (b) several blisters appear at 100 hours.

7 PACKAGING

Available in kegs of 25 kg or drums of 225 kg

8 STORAGE CONDITIONS

Storage life: **NORESTER® 842** resin is stable for 4 months from date of production. The product must be stored in original closed packaging at a temperature between 15°C and 25°C, away from direct sunlight.

It is the responsibility of the customer to assure that the product is used in good conditions overall before the date limitation mentioned on the keg.

This resin is subject to the Highly Flammable Liquids Regulations.

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