1 CHARACTERISTICS

NORESTER® 680 TPA is a vinylester resin with excellent corrosion resistance, thixotroped and pre-accelerated.

- High flexural strength
- Solvent and acids resistance,
- High heat resistance
- Application hand lay-up and spray-up, filament winding
- Polymerise at room temperature with addtion of MEKP catalyst (Type Butanox M50).

2 PROPERTIES OF THE LIQUID RESIN

Brookfield viscosity (ISO 2555 - 20°C – sp3)	5 rpm : 1500 - 2000 cP 50 rpm : 750 - 850 cP
Gel time (ICON 002) (20°C - 2% MEKP in 100 g)	16 - 20 minutes
Non volatile content (ICON 003)	56 %
Acid value	3 - 10 mg KOH/g

3 MECHANICAL PROPERTIES OF THE CURED RESIN

Flexural strength * (ISO 178)	83.9 MPa
Flexural modulus * (ISO 178)	3.43 GPa
Tensile strength* (ISO 527-2)	53.1 MPa
Elongation at break* (ISO 527-2)	3.12%
Temperature of deflection under load * (HDT) (ISO 75-3)	101°C
Barcol hardness * (ASTM 2583)	45

*Test realized on cast resin post cured 24 hours at room temperature and 3 hours at 80°C

4 MECHANICAL PROPERTIES ON LAMINATE

Flexural strength * (ISO 178)	243.9 MPa
Flexural modulus * (ISO 178)	8.55 GPa
Tensile strength* (ISO 527-4)	115.3 MPa
Elongation at break* (ISO 527-4)	
Barcol hardness * (ASTM 2583)	50

*test realized on laminate 4 ply 450 g/m^2 post cured 24 hours at room temperature and 3 hours at 80°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® 680**, 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 specifiations. 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.

5 VERSIONS

Available in no pre accelerated and no thixotropic version: **R680** (Viscosity 50 RPM: 500 – 700 cP at 20°C and gel time: 30 – 40 min at 20°C with 0.3% Co6% and 2% of MEKP).
Available in **LGT** version, gel time: 50 – 60 min with 2% MEKP at 20°C on 100 g.
Available in **MGT** version, gel time: 28 – 32 min with 2% MEKP at 20°C on 100 g.

6 RECOMMENDATIONS BEFORE USE

- Mix the peroxide very well, never put less than 1% and more than 3% of MEKP
- Before use, check that the temperature of the mould, of the room and of the gel coat is between 18°C and 25°C.
- Before use, mix the peroxide very well to obtain a homogeneous polymerisation

7 PACKAGING

NORESTER 680 TPA is available in kegs of 25 kg and in drums of 225 kg.

8 CONDITIONS DE STOCKAGE

Storage life: **NORESTER® 680 TPA** resin is stable for 3 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.