

1 CHARACTERISTICS

The **NORESTER® 912 TPAV** is an orthophtalic laminating resin with low styrene emission. It is recommended for the production of the laminates by hand laying or spraying application.

- Pre-accelerated resin cures at room temperature by addition of MEKP catalyst (Butanox M50 type).
- Thixotropic resin permits a production of laminates on moulds in vertical application.
- Colour change mechanism to indicate state of cure.
- Good wettability.
- Low styrene emission.
- **LLOYDS certified versions: R912TPA, R912TPAV, R912TPAVMGT, R912TPAVLGT, R912TPAMGT, R912TPALGT, certificat n° MATS/4743/1 of 29/10/2015.**

2 PROPERTIES OF THE LIQUID RESIN

Brookfield viscosity (ISO 2555 - 20°C – sp3)	5 rpm : 1800 - 2200 cP 50 rpm : 630 - 730 cP
Density (ICON 012)	1.10 - 1.14 g/cm ³
Gel time (ICON 002) (20°C – 2% MEKP M50 on 100 g)	16 - 20 minutes
Peak Exotherm time (20°C – 2% MEKP M50 on 100 g)	32 - 38 minutes
Peak Exotherm temperature (20°C – 2% MEKP M50 on 100 g)	125 - 135°C
Solid Content (ICON 003)	54 - 56 %

3 CHARTS REACTIVITY

R912TPAV

	1.2%*	1.5%*	1.75%*	2%*
15°C	25 min	22 min	20 min	19 min
20°C	20 min	18 min	17 min	16 min
25°C	14 min	11 min	10 min	8 min
30°C	12 min	9 min	8 min	7 min

*MEKP M50 on 100 g

R912TPAVMGT

	1%*	1.5%*	2%*	2.5%*
15°C	76 min	52 min	42.5 min	36 min
20°C	58 min	31 min	24 min	22 min
25°C	28 min	22 min	17 min	15 min
30°C	18.5 min	14 min	11.5 min	10 min

*MEKP M50 on 100 g

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® 912 TPAV**, 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.

R912TPAVLGT

	1.2%*	1.5%*	1.75%*	2%*
15°C	82 min	62 min	54 min	49 min
20°C	58 min	44 min	37 min	35 min
25°C	35 min	26 min	24 min	20 min
30°C	26 min	18 min	16 min	15 min

*MEKP M50 on 100 g

4 MECHANICAL PROPERTIES ON CAST RESIN

Flexural strength* (ISO 178)	71.4 MPa
Tensile strength* (ISO 527)	30.4 MPa
Elongation at break* (ISO 527)	1.5 %
Temperature of deflection under load* (HDT)* (ISO 75-3)	62°C
Barcol hardness* (ASTM 2583)	50

*Test realized on pure resin with catalyst rate of 2% MEKP M50 and post cured 3 hours at 80°C.

5 MECHANICAL PROPERTIES ON LAMINATE

Flexural strength* (ISO 178)	234.7 MPa
Tensile strength* (ISO 527)	125.3 MPa
Flexural modulus* (ISO 178)	8.7 GPa
Deform at break * (ISO 178)	8.11 mm
Barcol hardness* (ASTM 2583)	50

* Test realized on laminate 4 ply 450g with resin catalyzed with 2% MEKP M50 and post cured 3 hours at 80°C.

6 VERSION

NORESTER 912 TPAV is available in:

- Low viscosity version: **R912TPAVBV** with a viscosity at 5 rpm: 1700 - 1900 cP and at 50 rpm: 550 - 650 cP (20°C - sp3).
- Medium gel time version: **R912TPAVMGT** with a gel time of 23 - 27 min (20°C - 2% MEKP M50 on 100 g).
- Long gel time version: **R912TPAVLGT** with a gel time of 35 - 41 minutes (20°C - 2% MEKP M50 on 100 g).
- LGT and white version: **R912TPAVLGTBLANCHE** with a gel time of 35 - 41 minutes (20°C - 2% MEKP M50 on 100g).
- Super LGT version: **R912TPAVSUPERLGT** with a gel time of 48 - 52 minutes (20°C - 2% MEKP M50 on 100g).
- White version: **R912TPAVBLANCHE**.

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7 RECOMMENDATIONS BEFORE USE

- Mix well the product before use.
- Never put less than 1% and more than 3% of peroxide MEKP M50.
- Before use, check that the temperature of the product and the room is between 18°C and 25°C.
- To obtain a homogeneous polymerization, mix the catalyst well before use.
- Sand slightly the surface of laminate if the time between two laminate layers is higher at 24 hours.

8 PACKAGING

Available in cans of 25 kg, drums of 225 kg or IBC 1T.

9 STORAGE CONDITIONS AND HANDLING

Storage life: **NORESTER 912 TPAV** 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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