

**Description**

Unsaturated ortho-terephthalic polyester resin, diluted in styrene, with medium viscosity and medium reactivity, thixotropic and preaccelerated with catalyst indicator.

**Applications**

BIOSIRCLE<sup>®</sup> UPFT 0993/ATS is a general-purpose resin suitable for hand lay-up and spray-up applications, and contains 25% of raw materials from plastic recycle industry (PET polymers): it provides efficient wetting capability and good mechanical strengths.

**Sales specification**

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/ g	SIR 10231

**Typical Properties**

Property	Value	Unit	Method
Appearance	Blue hazy	-	SIR 10010
Styrene content	44	%	SIR 10257
Thixotropic index at 25 °C	≥ 3		SIR 10215
- 2 rpm	≥ 2000	mPa.s	SIR 10215
- 20 rpm	≤ 600	mPa.s	SIR 10215
Gel time at 20 °C <sup>(1)</sup>	16	minutes	SIR 10493
Time to peak	34	minutes	SIR 10493
Exothermic peak	120	°C	SIR 10493
Stability at 65°C	6	days	SIR 10242

(1) Formulation: 100 gr resin + 1,00 ml MEKP-50.

During long storage a slight increase of the geltime can occur: we suggest to adjust the amount of catalyst in order to obtain correct values.

BIOSIRCLE<sup>®</sup>: SIR INDUSTRIALE registered trade mark.

N.B.: The data given in this brochure do not constitute characteristic properties of the single product.

To our best knowledge, the information contained in this brochure is accurate and corresponds to the truth.

However, any recommendations or suggestions are provided without any guarantee, since the conditions in which the products are used are not under our control. Furthermore, nothing contained in this brochure shall be interpreted as a recommendation for using the product in violation of any patents relating to the material and their uses.

**Mechanical properties of pure cured resin (\*)**

<b>Property</b>	<b>Value</b>	<b>Unit</b>	<b>Method</b>
Barcol hardness	40		EN 59
Flexural strength	120	MPa	ISO 178
E-Module, flexion	3600	MPa	ISO 178
Tensile strength	65	MPa	EN ISO 527
E-Module, tension	3800	MPa	EN ISO 527
Elongation at break	2,5	%	EN ISO 527
HDT	70	°C	EN ISO 75 A

(\*) typical properties, not suitable for specifications; postcuring cycle: 24 hours 25 °C + 2 hours 100 °C

**Mechanical properties of the reinforced resin (glass/resin 30/70) (\*)**

<b>Property</b>	<b>Value</b>	<b>Unit</b>	<b>Method</b>
Flexural strength	210	MPa	ISO 14125
E-Module, flexion	8600	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	8700	MPa	EN ISO 527

(\*) typical properties, not suitable for specifications; postcuring cycle: 24 hours 25 °C + 2 hours 100 °C

**Supply Form**

Product is available in a 225 kg lined drum, 1000 kg container or in bulk.

**Storage stability**

The product is stable for 6 months if stored in the original unopened packaging), below 30 °C and away from direct sunlight and heat sources. Keep away from iron and copper salts, organic and inorganic peroxides. Thixotropic properties are guaranteed for 3 months: a long period of storage can cause slight segregation of the solid part of the product. Stir the resin before use.

**Safety**

The product is flammable and harmful. Further information is provided in the relevant safety data sheet.

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