

SIRESTER[®] FS 0800/P

**PRODUCT DATA
SHEET**
RP/0800P/052021

Description

Orthophthalic unsaturated polyester resin, diluted in styrene, with high reactivity and medium viscosity.

Applications

SIRESTER FS 0800/P is suitable for applications where high HDT and high elongation at break values are requested, in particular pultrusion: it provides good wetting properties and high mechanical strengths; properly fabricated and postcured parts conform type 1140 according to DIN 16946/2.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	600 – 800	mPa s	SIR 10015

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	35	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	7	minute	SIR 10234
SPI	5	minute	
peak temperature	230	°C	SIR 10232
time to peak	8	minute	
Stability at 65 °C	6	day	SIR 10242

(1) Formulation: 100 gr resin + 0,20 ml Co (oct.) 6% + 1,50 ml MEKP-50.

SIRESTER[®]: 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.

SIRESTER[®] FS 0800/P

**PRODUCT DATA
SHEET**
RP/0800P/052021

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	55		EN 59
Flexural strength	120	MPa	ISO 178
E-Module, flexion	4100	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	3800	MPa	EN ISO 527
Elongation at break	3,5	%	EN ISO 527
HDT	105	°C	EN ISO 75 A

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

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

Property	Value	Unit	Method
Flexural strength	220	MPa	ISO 14125
E-Module, flexion	9500	MPa	ISO 14125
Tensile strength	100	MPa	EN ISO 527
E-Module, tension	9000	MPa	EN ISO 527

(*) Typical properties, not suitable for specification; 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 guidelines

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.

Safety

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

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SIRESTER[®] FS 0840

**PRODUCT DATA
SHEET**
RP/0840/102021

Description

Orthophthalic unsaturated polyester resin, diluted in styrene, with high reactivity and medium viscosity.

Applications

SIRESTER FS 0840 is suitable in particular pultrusion: it provides good wetting properties, high mechanical strengths and superior smooth surfaces of the composite.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	600 – 800	mPa s	SIR 10015

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	35	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	7	minute	SIR 10234
Stability at 65 °C	6	day	SIR 10242

(1) Formulation: 100 gr resin + 0,20 ml Co (oct.) 6% + 1,50 ml MEKP-50.

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SIRESTER[®] FS 0840

**PRODUCT DATA
SHEET**
RP/0840/102021

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	120	MPa	ISO 178
E-Module, flexion	3900	MPa	ISO 178
Tensile strength	75	MPa	EN ISO 527
E-Module, tension	3800	MPa	EN ISO 527
Elongation at break	3,0	%	EN ISO 527
HDT	90	°C	EN ISO 75 A

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

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

Property	Value	Unit	Method
Flexural strength	220	MPa	ISO 14125
E-Module, flexion	9100	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	9000	MPa	EN ISO 527

(*) Typical properties, not suitable for specification; 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 guidelines

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.

Safety

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SIRESTER[®] IS 0976/P

MECHANICAL PROPERTIES

Mechanical properties cured resin

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	95	MPa	EN 63
E-Module, flexion	3600	MPa	EN 63
Tensile strength	75	MPa	EN 61
E-Module, tension	3300	MPa	EN 61
Elongation at break	5,0	%	EN 61
HDT	100	°C	EN ISO 75 A

Mechanical properties reinforced resin (glass/resin 30/70)

Property	Value	Unit	Method
Flexural strength	160	MPa	EN 63
E-Module, flexion	6800	MPa	EN 63
Tensile strength	60	MPa	EN 61
E-Module, tension	6700	MPa	EN 61

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SIRESTER® IS 4240/P

**PRODUCT DATA
SHEET**
RP/4240P/052021

Description

Isophthalic unsaturated polyester resin, diluted in styrene, with medium reactivity and medium-high viscosity.

Applications

SIRESTER IS 4240/P is suitable for the production of composite materials, where good chemical resistance is required, in particular for pultrusion; it provides good wetting properties and superior mechanical strengths; properly fabricated and postcured parts conform type 1140 according to DIN 16946/2, and may be used for food contact applications according to UE n° 10/2011.

Sales specification

Property	Value	Unit	Method
Acid number	< 20	mg KOH/gr	SIR 10231
Viscosity at 25 °C	700 - 900	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear yellowish		SIR 10010
Styrene content	35	%	SIR 10257
Hazen colour	< 200	Sc. Pt/Co	SIR 10007
Gel time at 25 °C ⁽¹⁾	6	minutes	
Curing time	12	minutes	SIR 10234
Exothermic peak	215	°C	
Stability at 65 °C	6	days	SIR 10242

(1) Formulation: 100 gr resin + 0,20 ml Co (Oct) 6% + 1,50 ml MEKP-50.

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SIRESTER[®] IS 4240/P

**PRODUCT DATA
SHEET**
RP/4240P/052021

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	50		EN 59
Flexural strength	140	MPa	ISO 178
E-Module, flexion	4300	MPa	ISO 178
Tensile strength	75	MPa	EN ISO 527
E-Module, tension	3900	MPa	EN ISO 527
Elongation at break	2,0	%	EN ISO 527
HDT	105	°C	EN ISO 75 A

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

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

Property	Value	Unit	Method
Flexural strength	230	MPa	ISO 14125
E-Module, flexion	9200	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	8800	MPa	EN ISO 527

(*) Typical properties, not suitable for specification; 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 guidelines

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.

Safety

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

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SIRESTER[®] VE 45-M-90

PRODUCT DATA SHEET

RP/VE45M90/052024

Description

Epoxy Bisphenol-A based vinylester resin, diluted in styrene, with medium viscosity and medium reactivity.

Applications

SIRESTER VE 45-M-90 is indicated for general purposes, in all those cases where high chemical resistance towards a wide range of substances is required; the excellent mechanical properties make it suitable for different and wide fields of application. Drinkable water contact certification n° 067/12 by Politecnico di Milano. Lloyd's Register approval n° LR21112933ALP.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 15	mg KOH/g	SIR 10231
Viscosity at 25°C	500 - 600	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear	-	SIR 10010
Styrene content	38	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	15	minutes	SIR 10277
Time to peak	10	minutes	SIR 10277
Exothermic peak	175	°C	SIR 10277
Stability at 65°C	6	days	SIR 10242

(1) Formulation: 100 gr resin + 0,30 ml Co (octoate) 6% + 0,10 ml DEAA + 1,25 ml MEKP-50.

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Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	150	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	85	MPa	EN ISO 527
E-Module, tension	3500	MPa	EN ISO 527
Elongation at break	5,0	%	EN ISO 527
HDT	105	°C	EN ISO 75 A

(*) typical properties, not suitable for specifications; postcuring cycle: 24 hours 25 °C + 3 hours 100 °C

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

Property	Value	Unit	Method
Flexural strength	230	MPa	ISO 14125
E-Module, flexion	8500	MPa	ISO 14125
Tensile strength	130	MPa	EN ISO 527
E-Module, tension	8600	MPa	EN ISO 527

(*) typical properties, not suitable for specifications; postcuring cycle: 24 hours 25 °C + 3 hours 100 °C

Supply Form

Product is available in a 200 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.

Safety

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

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