

# SIRESTER<sup>®</sup> FS 0800

**PRODUCT DATA  
SHEET**  
RP/0800/052011

## Description

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

## Applications

SIRESTER FS 0800 is a general purpose material, suitable in particular for applications where high HDT and high elongation at break values are required: 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	300 – 400	mPa s	SIR 10015

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	38	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	18	minute	SIR 10234
SPI	5	minute	
peak temperature	220	°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<sup>®</sup>: SIR INDUSTRIALE registered trade mark.

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

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# SIRESTER<sup>®</sup> FS 0800

**PRODUCT DATA  
SHEET**  
RP/0800/052011

## 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<sup>®</sup> FS 0800/PRA

**TECHNICAL DATA  
SHEET**  
RP/0800PRA/052021

## Description

Orthophthalic unsaturated polyester resin, diluted in styrene, preaccelerated with medium reactivity and medium-low viscosity.

## Applications

SIRESTER FS 0800/PRA is a general purpose material, particularly suitable for filament winding applications, where high HDT and high elongation at break values are required; fully cured material conforms to type 1140 according to DIN 16946/2 and is classified in group 1B according to EN 13121.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	250 – 400	mPa s	SIR 10015

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	38	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	15	minute	
Time to peak	23	minute	SIR 10267
Exothermic peak	210	°C	
Stability at 65 °C	6	days	SIR 10242

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

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

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# SIRESTER<sup>®</sup> FS 0800/PRA

**TECHNICAL DATA  
SHEET**  
RP/0800PRA/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<sup>®</sup> FS 0800/V

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

## Description

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

## Applications

SIRESTER FS 0800/V is particularly suitable for applications where high HDT and high elongation at break values are required, especially for filament winding process; properly fabricated and postcured parts conform type 1140 according to DIN 16946/2.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 25	mg KOH/gr	SIR 10231
Viscosity at 25 °C	500 – 700	mPa s	SIR 10015

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	36	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	28	minute	SIR 10234
Time to peak	38	minute	SIR 10234
Exothermic peak	190	°C	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<sup>®</sup> FS 0800/V

**PRODUCT DATA  
SHEET**  
RP/0800V/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<sup>®</sup> FS 0956

**PRODUCT DATA  
SHEET**  
RP/0956/052021

## Description

Unsaturated orthophthalic polyester resin, diluted in styrene, with medium reactivity and medium viscosity.

## Applications

SIRESTER FS 0956 is a general purpose resin: it provides excellent wetting properties, superior smooth finishing on laminates and good mechanical strengths.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	400 – 500	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 <sup>(1)</sup>	11	minute	SIR 10234
SPI gel time	7	minute	
Time to peak	9	minute	SIR 10232
Exothermic peak	195	°C	
Stability at 65 °C	6	day	SIR 10242

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

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# SIRESTER<sup>®</sup> FS 0956

**PRODUCT DATA  
SHEET**  
RP/0956/052021

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

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	140	MPa	ISO 178
E-Module, flexion	4100	MPa	ISO 178
Tensile strength	80	MPa	EN ISO 527
E-Module, tension	4000	MPa	EN ISO 527
Elongation at break	3,5	%	EN ISO 527
HDT	75	°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	215	MPa	ISO 14125
E-Module, flexion	8700	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<sup>®</sup> FS 0995/C

**PRODUCT DATA  
SHEET**  
RP/0995C/052021

## Description

Unsaturated orthophthalic polyester resin, diluted in styrene, with medium reactivity and medium viscosity.

## Applications

SIRESTER FS 0995/C is a general purpose material, suitable in particular for filament winding application: it provides good wetting properties and good mechanical strengths.

## Sales specification

Property	Value	Unit	Method
Acid number	< 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	470 - 570	mPa s	SIR 10017

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	36	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	60	minute	SIR 10392
Stability at 65 °C	6	day	SIR 10242

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

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# SIRESTER<sup>®</sup> FS 0995/C

**PRODUCT DATA  
SHEET**  
RP/0995C/052021

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

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	140	MPa	ISO 178
E-Module, flexion	4200	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	4100	MPa	EN ISO 527
Elongation at break	2,5	%	EN ISO 527
HDT	75	°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	9000	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

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

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# SIRESTER<sup>®</sup> FS 4230

**PRODUCT DATA  
SHEET**  
RP/4230/052021

## Description

Unsaturated orthophthalic polyester resin, diluted in styrene, with medium reactivity and medium viscosity.

## Applications

SIRESTER FS 4230 is a general purpose resin, suitable in particular for filament winding applications: it provides superior wetting properties and high mechanical strengths.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	450 - 550	mPa s	SIR 10015

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Apha colour	< 100	Sc. Co/Pt	SIR 10007
Styrene content	35	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	10	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<sup>®</sup> FS 4230

**PRODUCT DATA  
SHEET**  
RP/4230/052021

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

Property	Value	Unit	Method
Barcol Hardness	45		EN 59
Flexural strength	120	MPa	ISO 178
E-Module, flexion	4500	MPa	ISO 178
Tensile strength	75	MPa	EN ISO 527
E-Module, tension	4200	MPa	EN ISO 527
Elongation at break	2,5	%	EN ISO 527
HDT	75	°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	9200	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<sup>®</sup> FS 4235

**PRODUCT DATA  
SHEET**  
RP/4235/052021

## Description

Unsaturated orthophthalic polyester resin, diluted in styrene, with medium reactivity and medium viscosity.

## Applications

SIRESTER FS 4235 is a general purpose resin, suitable in particular for filament winding and centrifugal casting applications: it provides efficient wetting properties and high mechanical strengths.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	400 - 450	mPa s	SIR 10015

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Apha colour	< 100	Sc. Co/Pt	SIR 10007
Styrene content	38	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	13	minute	SIR 10234
Gel to peak time	10	minute	SIR 10234
Exothermic peak	180	°C	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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## Mechanical properties of pure cured resin (\*)

Property	Value	Unit	Method
Barcol hardness	45	Barcol	EN 59
Flexural strength	130	MPa	ISO 178
E-Module, flexion	4100	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	3700	MPa	EN ISO 527
Elongation at break	2,8	%	EN ISO 527
HDT	80	°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	240	MPa	ISO 14125
E-Module, flexion	8300	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	8400	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<sup>®</sup> IS 0785

**PRODUCT DATA  
SHEET**  
RP/0785/052021

## Description

Unsaturated polyester resin based on neopentylglycol, diluted in styrene, with medium reactivity and medium-high viscosity.

## Applications

SIRESTER IS 0785 is particularly suitable for piping and tank production by filament winding technology: it provides good wetting of the glass fibre, excellent mechanical properties and high chemical resistance. Drinkable water contact certification n° 067/12 by Politecnico di Milano.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 15	mg KOH/gr	SIR 10231
Viscosity at 25 °C	700 – 900	mPa s	SIR 10017

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear to light hazy		SIR 10010
Styrene content	37	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	28	minute	SIR 10234
Gel to peak time	13	minute	SIR 10234
Exothermic peak	180	°C	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<sup>®</sup> IS 0785

**PRODUCT DATA  
SHEET**  
RP/0785/052021

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

Property	Value	Unit	Method
Barcol hardness	50		EN 59
Flexural strength	120	MPa	ISO 178
E-Module, flexion	4100	MPa	ISO 178
Tensile strength	75	MPa	EN ISO 527
E-Module, tension	3700	MPa	EN ISO 527
Elongation at break	3,0	%	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	210	MPa	ISO 14125
E-Module, flexion	8500	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<sup>®</sup> IS 0976/V

**PRODUCT DATA  
SHEET**  
RP/0976V/052021

## Description

Isophthalic unsaturated polyester resin based on neopentylglycol, diluted in styrene, with low reactivity and medium viscosity. The resin is UV stabilized.

## Applications

SIRESTER IS 0976/V is suitable in particular for the production of pipelines and storage tanks by filament winding applications; it provides good wetting properties and high mechanical strengths, in particular flexural, along with high chemical and UV resistance.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 15	mg KOH/gr	SIR 10231
Viscosity at 25 °C	500 - 700	mPa s	SIR 10017

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear to hazy	-	SIR 10010
Colour	< 100	Hazen	SIR 10007
Styrene content	41	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	33	minutes	SIR 10234
Gel to peak time	12	minutes	SIR 10234
Exothermic peak	180	°C	SIR 10234
Stability at 65 °C	6	days	SIR 10242

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

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

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

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# SIRESTER® IS 0976/V

**PRODUCT DATA  
SHEET**  
RP/0976V/052021

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

Property	Value	Unit	Method
Barcol hardness	30		EN 59
Flexural strength	115	MPa	ISO 178
E-Module, flexion	3200	MPa	ISO 178
Tensile strength	65	MPa	EN ISO 527
E-Module, tension	3000	MPa	EN ISO 527
Elongation at break	5,0	%	EN ISO 527
HDT	80	°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	180	MPa	ISO 14125
E-Module, flexion	7800	MPa	ISO 14125
Tensile strength	100	MPa	EN ISO 527
E-Module, tension	7900	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<sup>®</sup> IS 4245/C

**PRODUCT DATA SHEET**  
RP/IS4245C/052021

## Description

Unsaturated isophthalic polyester resin, diluted in styrene, with medium reactivity and low viscosity, thixotropic and preaccelerated.

## Applications

SIRESTER IS 4245/C is a general purpose material, suitable in particular for industrial and marine applications by Hand Lay-up or Spray-up technique, that provides superior mechanical and thermal properties, along with good chemical resistance. WRAS Approved Material, certification n° 2106533.

## Sales specification

Property	Value	Unit	Method
Acid number	≤ 20	mg KOH/gr	SIR 10231

## Typical Properties

Property	Value	Unit	Method
Appearance	Rose hazy		SIR 10010
Styrene content	45	%	SIR 10257
Thixotropic index at 25 °C	> 2,8		SIR 10215
- 2 rpm	> 1500	mPa s	
- 20 rpm	< 600	mPa s	
Gel time at 25 °C <sup>(1)</sup>	20	minute	SIR 10276
Hardening time at 25 °C	35	minute	SIR 10276
Exothermic peak	190	°C	SIR 10276
Stability at 65 °C	6	day	SIR 10242

(1) Formulation: 100 gr resin + 2,00 ml MEKP-50.

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

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

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# SIRESTER<sup>®</sup> IS 4245/C

**PRODUCT DATA  
SHEET**  
RP/IS4245C/052021

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

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	115	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	2,5	%	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 glass fibre reinforced resin (glass/resin 30/70) (\*)

Property	Value	Unit	Method
Flexural strength	210	MPa	ISO 14125
E-Module, flexion	9100	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	8900	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. Thixotropy 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.

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

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**Description**

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

**Applications**

SIRESTER ISN 0841/ATC/E is a general-purpose material, suitable for hand lay-up and spray-up applications: it provides efficient wetting capability and good mechanical strengths; properly fabricated and postcured parts may be used for food contact applications according to EU n° 10/2011.

**Sales specification**

Property	Value	Unit	Method
Acid number	≤ 18	mg KOH/ g	SIR 10231

**Typical Properties**

Property	Value	Unit	Method
Appearance	Blue hazy	-	SIR 10010
Styrene content	42	%	SIR 10257
Thixotropic index at 25 °C	≥ 3		SIR 10215
- 2 rpm	≥ 2400	mPa.s	SIR 10215
- 20 rpm	≤ 800	mPa.s	SIR 10215
Gel time at 25 °C <sup>(1)</sup>	38	minutes	SIR 10276
Time to peak	53	minutes	SIR 10276
Exothermic peak	180	°C	SIR 10276
Stability at 65°C	6	days	SIR 10242

(1) Formulation: 100 gr resin + 2,00 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.

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

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

<b>Property</b>	<b>Value</b>	<b>Unit</b>	<b>Method</b>
Barcol hardness	45		EN 59
Flexural strength	130	MPa	ISO 178
E-Module, flexion	4100	MPa	ISO 178
Tensile strength	80	MPa	EN ISO 527
E-Module, tension	3900	MPa	EN ISO 527
Elongation at break	3,0	%	EN ISO 527
HDT	85	°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	250	MPa	ISO 14125
E-Module, flexion	9000	MPa	ISO 14125
Tensile strength	120	MPa	EN ISO 527
E-Module, tension	8800	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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# SIRESTER<sup>®</sup> ISN 0841/RF

**PRODUCT DATA SHEET**  
RP/0841RF/052021

## Description

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

## Applications

SIRESTER ISN 0841/RF is suitable for the production of pipelines and storage tanks by filament winding applications; it provides superior wetting properties and very good mechanical strengths. Drinkable water contact certification n° 067/12 by Politecnico di Milano.

## Sales specification

Property	Value	Unit	Method
Acid number	< 18	mg KOH/gr	SIR 10231
Viscosity at 25 °C	150 - 250	mPa s	SIR 10015

## Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	40	%	SIR 10257
Gel time at 25 °C <sup>(1)</sup>	15	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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## Mechanical properties of pure cured resin (\*)

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	100	MPa	ISO 178
E-Module, flexion	4000	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	3900	MPa	EN ISO 527
Elongation at break	1,5	%	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	210	MPa	ISO 14125
E-Module, flexion	8700	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	9200	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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