SIRESTER® EC 0768/D

Description

Ortophthalic unsaturated polyester resin based on neopentylglycol, diluted in styrene, with quick reactivity and medium-low viscosity; contains an internal release agent

Applications

SIRESTER EC 0768/D is particularly suitable in the production of filled systems and polymer concrete articles, with high percentage of mineral filler. The resin contains an additive that migrates on the surface in order to reduce styrene emission, and an internal demoulding agent.

Sales specification

Property	Value	Unit	Method
Acid number	< 18	mg KOH/gr	SIR 10231
Viscosity at 25 °C	380 - 420	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear to hazy		SIR 10010
Hazen colour	< 100	Sc. Co/Pt	SIR 10007
Styrene content	35	%	SIR 10257
Gel time at 20 °C (1)	5	minute	SIR 10420
Stability at 65 °C	6	day	SIR 10242

(1) Formulation: 100 gr resin + 0,20 ml Co (oct) 6% + 2,0 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.





SIRESTER® EC 0768/D

Property	Value	Unit	Method
Barcol hardness	50		EN 59
Flexural strength	130	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	3600	MPa	EN ISO 527
Elongation at break	3,0	%	EN ISO 527
HDT	70	°C	EN ISO 75 A

Mechanical properties of pure cured resin (*)

(*) 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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Description

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

Applications

SIRESTER FS 0948 is suitable for filled castings, in particular for sanitary and sink production: it provides high wetting capabilities and good mechanical strengths.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	450 – 600	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 (1)	14	minute	SIR 10234
Stability at 65 °C	6	day	SIR 10242

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

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Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	50		EN 59
Flexural strength	120	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	3500	MPa	EN ISO 527
Elongation at break	4,0	%	EN ISO 527
HDT	60	°C	EN ISO 75 A

(*) 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 0993/M

Description

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

Applications

SIRESTER FS 0993/M is suitable for casting with mineral fillers, in particular for engineered stone and artificial marble applications: it provides good wetting properties, very limited shrinkage and high flexibility.

Sales specification

Property	Value	Unit	Method
Acid number	< 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	400 - 600	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Colour Hazen	< 100	Sc. Co/Pt	SIR 10007
Styrene content	35	%	SIR 10257
Gel time at 25 °C (1)	11	minute	SIR 10234
SPI	5	minute	SIR 10232
peak temperature	175	°C	
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.

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SIRESTER® FS 0993/M

Property	Value	Unit	Method	
Barcol hardness	40		EN 59	
Flexural strength	130	MPa	ISO 178	
E-Module, flexion	3800	MPa	ISO 178	
Tensile strength	60	MPa	EN ISO 527	
E-Module, tension	3400	MPa	EN ISO 527	
Elongation at break	8,0	%	EN ISO 527	
HDT	50	°C	EN ISO 75 A	

Mechanical properties of pure cured resin (*)

(*) 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	8100	MPa	ISO 14125
Tensile strength	100	MPa	EN ISO 527
E-Module, tension	8300	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 0995/ML

Description

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

Applications

SIRESTER FS 0995/ML is a general purpose material, suitable in particular for casting application with high percentage of mineral fillers; the material is UV stabilized.

Sales specification

Property	Value	Unit	Method
Acid number	< 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	270 - 350	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Colour	< 100	Sc. Co/Pt	SIR 10017
Styrene content	38	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	8	minute	SIR 10234
Stability at 65 °C	6	day	SIR 10242

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

SIRESTER [®]: SIR INDUSTRIALE registered trade mark.

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SIRESTER® FS 0995/ML

Property	Value	Unit	Method	
Barcol hardness	40		EN 59	
Flexural strength	130	MPa	ISO 178	
E-Module, flexion	3800	MPa	ISO 178	
Tensile strength	75	MPa	EN ISO 527	
E-Module, tension	3900	MPa	EN ISO 527	
Elongation at break	3,0	%	EN ISO 527	
HDT	70	°C	EN ISO 75 A	

Mechanical properties of pure cured resin (*)

(*) 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	8600	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	8700	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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Description

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

Applications

SIRESTER FS 4424 is a general purpose resin, suitable in particular for the production of abrasive chips: it provides high wetting of the fillers, quick curing cycle and high mechanical strengths.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	600 - 800	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Apha colour	< 80	Sc. Co/Pt	SIR 10007
Styrene content	35	%	SIR 10257
Gel time at 25 °C	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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Property	Value	Unit	Method
Barcol hardness	50		EN 59
Flexural strength	110	MPa	ISO 178
E-Module, flexion	4200	MPa	ISO 178
Tensile strength	75	MPa	EN ISO 527
E-Module, tension	3800	MPa	EN ISO 527
Elongation at break	2,0	%	EN ISO 527
HDT	80	°C	EN ISO 75 A

Mechanical properties of pure cured resin (*)

(*) 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	9200	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.

Safety

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

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Description

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

Applications

SIRESTER FS 9900 is particularly suitable for artificial marble, castings and encapsulations, with or without mineral fillers, and wherever reduced heat emission during hardening is required: it provides superior wetting properties, low volume shrinkage and very clear and light hardened material.

Sales specification

Property	Value	Unit	Method
Acid number	< 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	350 - 450	mPa s	SIR 10015

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Colour	< 70	Sc. Co/Pt	SIR 10007
Gel time at 25 °C ⁽¹⁾	20	minute	SIR 10234
Styrene content	38	%	SIR 10257
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 (*)

Method Unit Property Value 40 EN 59 **Barcol Hardness** Flexural strength 100 MPa ISO 178 E-Module, flexion 4200 MPa ISO 178 60 Tensile strength MPa **EN ISO 527** E-Module, tension 4000 MPa **EN ISO 527** Elongation at break 2,0 % **EN ISO 527** °C HDT 55 EN ISO 75 A

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

Property	Value	Unit	Method
Flexural strength	240	MPa	ISO 14125
E-Module, flexion	9200	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.

Safety

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

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SIRESTER® FSG 0754/A

Description

Orthophthalic unsaturated polyester resin based on neopentylglycol, diluted in styrene, preaccelerated with fast reactivity and medium-high viscosity; contains a UV stabilizer.

Applications

SIRESTER FSG 0754/A is indicated for filled castings with bright colour after cure, in particular for sanitary, onyx and marble imitations by solid surface application; the specific composition provides higher chemical and UV resistances than a standard orthophthalic polyester.

Sales specification

Property	Value	Unit	Method
Acid number	< 18	mg KOH/gr	SIR 10231
Viscosity at 25 °C	1000 - 1200	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear ochre		SIR 10010
Styrene content	34	%	SIR 10257
Gel time at 25 °C (1)	12	minute	SIR 10296
Hardening time	25	minute	SIR 10296
Exothermic peak	185	°C	SIR 10296
Stability at 65 °C	6	day	SIR 10242

(1) Formulation: 100 gr resin + 1,0 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® FSG 0754/A

EN ISO 527

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Property	Value	Unit	Method
Barcol hardness	45		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	2,5	%	EN ISO 527
HDT	85	°C	EN ISO 75 A

Mechanical properties of pure cured resin (*)

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

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Property	Value	Unit	Method
Flexural strength	220	MPa	ISO 14125
E-Module, flexion	8700	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527

110 8700

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

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

MPa

Supply Form

E-Module, tension

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® ISG 0839/MMA

Description

Isophthalic unsaturated polyester resin based on neopentylglycol, diluted in styrene and acrylic-modified, preaccelerated with medium reactivity and medium-high viscosity. The resin is UV stabilized.

Applications

SIRESTER ISG 0839/MMA is particularly suitable for solid surface applications, as fully densified products like onyx, sanitary and marble imitations, where high chemical and weathering resistance are required.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 16	mg KOH/gr	SIR 10231
Viscosity at 25 °C	1050 - 1100	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear to hazy		SIR 10010
Colour	Rose		SIR 10007
Monomer content	34	%	SIR 10257
Gel time at 25 °C (1)	26	minute	SIR 10267
Curing time	36	minute	SIR 10267
Exothermic peak	200	°C	SR 10267
Stability at 65 °C	6	day	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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Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	48		EN 59
Flexural strength	130	MPa	ISO 178
E-Module, flexion	4000	MPa	ISO 178
Tensile strength	75	MPa	EN ISO 527
E-Module, tension	3600	MPa	EN ISO 527
Elongation at break	2,0	%	EN ISO 527
HDT	95	°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	8400	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	8500	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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