

SIRESTER[®] FS 0940/RD

**PRODUCT DATA
SHEET**
RP/0940RD/052021

Description

Unsaturated orthophthalic polyester resin, diluted in styrene, with medium-fast reactivity and low viscosity. The resin contains a demoulding agent.

Applications

SIRESTER FS 0940/RD is suitable in particular for closed moulding applications as RTM manufacturing technology: it provides excellent wetting properties, fast curing cycle and high mechanical strengths.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 27	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	38	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	10	minute	SIR 10234
Gel to peak time	10	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 (Octoate) 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 0940/RD

**PRODUCT DATA
SHEET**
RP/0940RD/052021

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol Hardness	55		EN 59
Flexural strength	130	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	80	MPa	EN ISO 527
E-Module, tension	3600	MPa	EN ISO 527
Elongation at break	3,0	%	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	120	MPa	EN ISO 527
E-Module, tension	9600	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.

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 0956/AM40/E

PRODUCT DATA SHEET
RP/956AM40E/052021

Description

Unsaturated orthophthalic polyester resin, diluted in styrene, pre-accelerated and promoted with amide, with slow reactivity and medium viscosity.

Applications

SIRESTER FS 0956/AM40/E is suitable in particular for closed moulding application as infusion, injection and RTM; its formulation provides excellent wetting properties, fast moulding cycle and high mechanical strengths.

Sales specification

Property	Value	Unit	Method
Acid number	< 30	mg KOH/gr	SIR 10231
Viscosity at 25 °C	350 - 450	mPa s	SIR 10017

Typical properties

Properties	Value	Unit	Method
Appearance	Clear rose		SIR 10010
Styrene content	40	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	43	minute	SIR 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.

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 0956/AM40/E

PRODUCT DATA SHEET
RP/956AM40E/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.

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.

Description

Unsaturated orthophthalic polyester resin, diluted in styrene, preaccelerated with very low viscosity and slow reactivity.

Applications

SIRESTER FS 0994/AR is suitable for closed mould applications as infusion or injection, in particular for nautical purposes: it provides efficient wetting capability, low exothermic peak and good mechanical strengths. Lloyd's Register certification n° LR22412959ALP.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/ g	SIR 10231
Viscosity Brookfield at 25 °C	100 - 130	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Blue hazy	-	SIR 10010
Styrene content	46	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	45	minutes	SIR 10276
Hardening time	85		SIR 10276
Exothermic peak	140	°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.

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.

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	95	MPa	ISO 178
E-Module, flexion	3600	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	3400	MPa	EN ISO 527
Elongation at break	2,0	%	EN ISO 527
HDT	65	°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) (*)

Property	Value	Unit	Method
Flexural strength	200	MPa	ISO 14125
E-Module, flexion	8100	MPa	ISO 14125
Tensile strength	100	MPa	EN ISO 527
E-Module, tension	8200	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.

Safety

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

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[®] FSN 0850/AR

**PRODUCT DATA
SHEET**
RP/0850AR/072020

Description

Orthophthalic unsaturated polyester resin, diluted in styrene, preaccelerated with slow reactivity and very low viscosity.

Applications

SIRESTER FSN 0850/AR is suitable for closed mould applications as infusion or injection, in particular for nautical purposes; it provides high impregnation of fibreglass and good mechanical properties, along with reduced exothermic peak. Lloyd's Register approval n° LR21112921ALP.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/g	SIR 10231
Viscosity at 25 °C	80 – 100	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear liquid		SIR 10010
Styrene content	46	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	45	minute	SIR 10276
Hardening time	85		SIR 10276
Exothermic peak	140	°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.

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[®] FSN 0850/AR

**PRODUCT DATA
SHEET**
RP/0850AR/072020

Mechanical properties of pure cured resin

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	100	MPa	EN 63
E-Module, flexion	3900	MPa	EN 63
Tensile strength	70	MPa	EN 61
E-Module, tension	3800	MPa	EN 61
Elongation at break	2,5	%	EN 61
HDT	75	°C	EN ISO 75 A

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

Property	Value	Unit	Method
Flexural strength	200	MPa	EN 63
E-Module, flexion	8900	MPa	EN 63
Tensile strength	110	MPa	EN 61
E-Module, tension	9200	MPa	EN 61

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 a stainless steel tank or lined drums (avoid glass fibre based containers or tin plated drums), at 20 °C temperature, in a dark/ventilated place. 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.

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.

Description

Isophthalic unsaturated polyester resin, diluted in styrene, preaccelerated with slow reactivity and very low viscosity.

Applications

SIRESTER ISN 0841/AR is suitable for nautical purposes, in particular for closed moulds applications, as infusion and injection; it provides very good wetting capability and high mechanical strengths along with good chemical resistance and hydrolysis stability. Lloyd's Register approval n° LR21112923ALP.

Sales specification

Property	Value	Unit	Method
Acid number	< 18	mg KOH/gr	SIR 10231
Viscosity at 25 °C	100 - 180	mPa s	SIR 10015

Typical Properties

Property	Value	Unit	Method
Appearance	Clear rose		SIR 10010
Styrene content	46	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	45	minute	SIR 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.

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.

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
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 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	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 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.

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[®] LSC 0850/AM

PRODUCT DATA SHEET

RP/LSC 0850AM/092022

Description

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

Applications

SIRESTER LSC 0850/AM is suitable for closed mould applications as infusion or injection, in particular for nautical purposes: it provides efficient wetting capability, low exothermic peak and good mechanical strengths. Lloyd's Register certification n° LR22412943ALP.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/ g	SIR 10231
Viscosity Brookfield at 25 °C	200 - 250	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear greenish	-	SIR 10010
Styrene content	38	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	12	minutes	SIR 10276
Hardening time	20		SIR 10276
Exothermic peak	170	°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 gelltime can occur: we suggest to adjust the amount of catalyst in order to obtain correct values.

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.

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	125	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	65	MPa	EN ISO 527
E-Module, tension	3600	MPa	EN ISO 527
Elongation at break	2,0	%	EN ISO 527
HDT	75	°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) (*)

Property	Value	Unit	Method
Flexural strength	200	MPa	ISO 14125
E-Module, flexion	8700	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	9000	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.

Safety

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

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.

Description

Hybrid unsaturated polyester resin, diluted in styrene, preaccelerated with very low viscosity and slow reactivity.

Applications

SIRESTER LSC 0850/AR is suitable for closed mould applications as infusion or injection, in particular for nautical purposes: it provides efficient wetting capability, low exothermic peak and good mechanical strengths. Lloyd's Register certification n° LR22412943ALP.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 30	mg KOH/ g	SIR 10231
Viscosity Brookfield at 25 °C	100 - 120	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear greenish	-	SIR 10010
Styrene content	42	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	45	minutes	SIR 10276
Hardening time	70		SIR 10276
Exothermic peak	150	°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.

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.

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	125	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	65	MPa	EN ISO 527
E-Module, tension	3600	MPa	EN ISO 527
Elongation at break	2,0	%	EN ISO 527
HDT	75	°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) (*)

Property	Value	Unit	Method
Flexural strength	200	MPa	ISO 14125
E-Module, flexion	8700	MPa	ISO 14125
Tensile strength	110	MPa	EN ISO 527
E-Module, tension	9000	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.

Safety

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

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[®] VE 12-M-115/AR

PRODUCT DATA SHEET

RV/12M115AR/022022

Description

Modified epoxy bisphenol-A based vinylester resin, diluted in styrene, preaccelerated with slow reactivity and very low viscosity.

Applications

SIRESTER[®] VE 12M115/AR provides high chemical resistance towards a wide range of substances and excellent hydrolysis stability; suitable in particular for nautical purposes in closed-moulds applications as injection and infusion moulding; Lloyd's Register approval n° LR2252723ALP.

Sales specification

Properties	Value	Unit	Method
Acid number	< 15	mg KOH/gr	SIR 10231
Viscosity at 25 °C	70 – 100	mPa s	SIR 10017

Typical Properties

Properties	Value	Unit	Method
Appearance	Clear rose		SIR 10010
Styrene content	40	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	40	minute	SIR 10276
Time to Peak	65	minute	SIR 10276
Exothermic Peak	165	°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.

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.

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	125	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	4000	MPa	EN ISO 527
Elongation at break	2,5	%	EN ISO 527
HDT	110	°C	EN ISO 75 A

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

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

Property	Value	Unit	Method
Flexural strength	200	MPa	ISO 14125
E-Module, flexion	9100	MPa	ISO 14125
Tensile strength	120	MPa	EN ISO 527
E-Module, tension	9000	MPa	EN ISO 527

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

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® VE 12-M-115/ARM

PRODUCT DATA SHEET
RV/12M115ARM/022022

Description

Modified epoxy bisphenol-A based vinylester resin, diluted in styrene, preaccelerated with slow reactivity and very low viscosity.

Applications

SIRESTER® VE 12M115/ARM is suitable in particular for nautical purposes in closed-moulds applications as injection and infusion moulding; it provides good wetting properties, high chemical resistance towards a wide range of substances and excellent hydrolysis stability; Lloyd's Register approval n° LR2252723ALP.

Sales specification

Properties	Value	Unit	Method
Acid number	< 12	mg KOH/gr	SIR 10231
Viscosity at 25 °C	80 – 100	mPa s	SIR 10017

Typical Properties

Properties	Value	Unit	Method
Appearance	Clear rose	n. d.	SIR 10010
Styrene content	40	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	80	minute	SIR 10488
Gel to peak time	70	minute	SIR 10488
Exothermic Peak	150	°C	SIR 10488
Stability at 65 °C	6	day	SIR 10242

(1) Formulation: 100 gr resin + 1,60 ml Trigonox 249.

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.

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® VE 12-M-115/ARM

PRODUCT DATA SHEET
RV/12M115ARM/022022

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	125	MPa	ISO 178
E-Module, flexion	3800	MPa	ISO 178
Tensile strength	70	MPa	EN ISO 527
E-Module, tension	4000	MPa	EN ISO 527
Elongation at break	2,5	%	EN ISO 527
HDT	115	°C	EN ISO 75 A

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

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

Property	Value	Unit	Method
Flexural strength	200	MPa	ISO 14125
E-Module, flexion	9100	MPa	ISO 14125
Tensile strength	120	MPa	EN ISO 527
E-Module, tension	9000	MPa	EN ISO 527

(*) Typical properties, not suitable for specification; 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 a stainless steel tank or lined drums (avoid glass fibre based containers or tin plated drums), at 20 °C temperature, in a dark/ventilated place. Keep away from iron and copper salts, organic and inorganic peroxide. Mixing the product before use is strictly suggested.

Safety

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

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.

Description

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

Applications

SIRESTER VE 14M110/A is suitable for closed mould applications as infusion or injection, in particular for nautical purposes: it provides proper wettability of the fiberglass, superior mechanical and thermal properties, and excellent chemical resistance; Lloyd's Register approval n° LR2252731ALP.

Sales specification

Property	Value	Unit	Method
Acid number	≤ 15	mg KOH/g	SIR 10231
Viscosity at 25°C	120 - 150	mPa s	SIR 10017

Typical Properties

Property	Value	Unit	Method
Appearance	Clear rose	-	SIR 10010
Monomer content	40	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	70	minutes	SIR 10276
Time to peak	110	minutes	SIR 10276
Exothermic peak	175	°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.

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.

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	40		EN 59
Flexural strength	140	MPa	ISO 178
E-Module, flexion	3600	MPa	ISO 178
Tensile strength	80	MPa	EN ISO 527
E-Module, tension	3900	MPa	EN ISO 527
Elongation at break	2,5	%	EN ISO 527
HDT	110	°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	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 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.

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[®] VE 45-M-90/AR

**PRODUCT DATA
SHEET**
RV/45M90AR/052021

Description

Epoxy bisphenol-A based vinylester resin, diluted in styrene, accelerated with slow reactivity and low viscosity.

Applications

SIRESTER[®] VE 45-M-90/AR is suitable where high chemical resistance towards a wide range of substances is required, in particular for closed moulding applications as injection and infusion; it provides good wetting properties and high mechanical strengths. Lloyd's Register approval n° LR21112933ALP.

Sales specification

Properties	Value	Unit	Method
Acid number	<15	mg KOH/gr	SIR 10231
Viscosity at 25 °C	150 – 200	mPa s	SIR 10017

Typical Properties

Properties	Value	Unit	Method
Appearance	Clear rose	n. d.	SIR 10010
Styrene content	45	%	SIR 10257
Gel time at 25 °C ⁽¹⁾	60	minutes	SIR 10334
Stability at 65 °C	6	days	SIR 10242

(1) Formulation: 100 gr resin + 1,25 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.

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[®] VE 45-M-90/AR

PRODUCT DATA SHEET

RV/45M90AR/052021

Mechanical properties of pure cured resin (*)

Property	Value	Unit	Method
Barcol hardness	45		EN 59
Flexural strength	150	MPa	ISO 178
E-Module, flexion	3600	MPa	ISO 178
Tensile strength	85	MPa	EN ISO 527
E-Module, tension	3300	MPa	EN ISO 527
Elongation at break	3,0	%	EN ISO 527
HDT	102	°C	EN ISO 75 A

(*) Typical properties, not suitable for specification; 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	210	MPa	ISO 14125
E-Module, flexion	8000	MPa	ISO 14125
Tensile strength	130	MPa	EN ISO 527
E-Module, tension	8300	MPa	EN ISO 527

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

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.