

S-Glass Materials

S-glass materials - HS2 and HS4 - are high strength glass fibers made from magnesium alumina silicate system which meets the needs of military and other applications where high strength and high performance is required.

Available Materials

- S-Glass Textile Yarn
- S-Glass Multi-End Roving
- S-Glass Chopped Strands
- S-Glass Unidirectional Fabrics
- S-Glass Woven Roving
- S-Glass Fabrics



Above - S-Glass multi end roving available at a competitive price.

Compared to E-Glass, S-glass has the following features and benefits

- ✓ 30 to 40% better tensile strength
- ✓ 16 to 20% higher modulus of elasticity
- ✓ 100 to 150 degrees celsius better temperature endurance
- ✓ 10 fold higher fatigue resistance
- ✓ Excellent impact resistance because of the high elongation to breakage
- ✓ High ageing and corrosion resistance
- ✓ Quick resin wet-out properties
- ✓ Weight saving at the same performance



Above - S-Glass Woven Roving available 260 to 810g/m2 weights

Applications

Aerospace, marine and arms industries due to its high tensile strength and higher modulus of elasticity when compared to e-glass.

S-Glass Textile Yarn Specifications

Style No.	Tex	Twists (TPM)	Breaking Strength
SC8--12x1x2	24 ±2.4	55 / 110	≥ 14 N
SC8--12x2x2 SC8--24x1x2	48 ±4.8	55 / 110	≥ 28 N
SC8--12x2x3 SC8--24x1x3	72 ±7.2	55 / 110	≥ 42 N
SC8--12x2x4 SC8--24x1x4	96 ±9.6	55 / 110	≥ 56 N

S-Glass Multi-End Roving Specifications

Style No.	Filament Diameter	Linear Density (Tex)	Breaking Strength
SC-240	8, 11	240 ±18	≥ 120 N
SC-480	8, 11	480 ±36	≥ 200 N
SC-660	9, 11	660 ±49	≥ 297 N
SC-960	9,11,13	960 ±72	≥ 350 N
SC-1200	9,11,13	1200 ±90	≥ 500 N
SC-1980	9,11,13	1980 ±100	≥ 890 N
SC-2400	9,11,13	2400 ±120	≥ 1000 N

- S Glass High Strength Unidirectional Fabrics and Woven Roving**

High strength unidirectional fabric made through a hot melt process employing HS fiberglass roving as warps, heat set yarns as fills which insures minimum reinforcement warpage and optimum properties.

High strength fiberglass woven roving is bi-directional fabric made by interweaving HS fiberglass roving in plain or twill weave patterns.

Both are ideal reinforcement materials for sport and recreation parts, ballistic armour, and for strengthening materials for buildings

Specifications for S Glass Unidirectional Fabric

Style No.	Warp Tex	Fill	Count (ends/cm)		Weight (G/m ²)	Thickness (mm)
SWU414	660	Heat set yarn	W. 6.1	F. 1.6	414	0.34
SWU288	660	Heat set yarn	W. 4.1	F. 1.6	288	0.24
SWU220	400	Heat set yarn	W. 5.1	F. 1.6	220	0.18
SWU173	400	Heat set yarn	W. 3.9	F. 1.6	173	0.14

Specifications for S Glass Woven Roving

Style No.	Warp Tex	Fill Tex	Count (ends/cm)		Breaking Strength > (N/25mm)		Weight (G/m ²)
SWR260	240	240	W. 6.1	F. 4.7	1800	1400	260
SWR480	480	480	W. 5.0	F. 5.0	2700	2700	480
SWR600	1290	1290	W. 2.7	F. 1.9	4350	3050	610
SWR800	2033	2033	W. 2.0	F. 2.0	4570	4570	810

- **High Strength S Glass Fiber Fabric**

High strength fiberglass fabric made of direct-sized yarns which can be compatible with epoxy and vinyl ester resins without heat cleaning. The weave patterns available include plain, twill and satin. Thickness range from 0.08mm up to 0.30mm. Width is 90cm and above. High strength fiberglass fabrics are ideal reinforced material for aerospace, marine, arms industries thanks to its higher tensile strength and modulus when compared with e-glass fiberglass fabrics

Specifications for High Strength S Glass Fiber Fabric

Style No	Yarn Description	Count (ends/cm)		Breaking Strength (N/25mm)		Weight (G/m ²)	Weave Pattern
		Warp	Fill	Warp	Fill		
SW80B-90b	SC8-12 x 1 x 2	16	16	500	500	80	2/2 Twill
SW100A-90a	SC8-12 x 1 x 2	20	20	550	550	100	Plain
SW110C-90a	SC8-12 x 1 x 2	22	22	600	600	110	4HS
SW140B-90a	SC8-12 x 2 x 2	14	14	900	900	140	2/2 Twill
SW140C-90a	SC8-12 x 2 x 2	14	14	900	900	140	4HS
SW180D-90a	SC8-12 x 2 x 2	18	18	1200	1200	180	5HS
SW210B-92a	SC8-12 x 2 x 3	16	12	1600	1350	210	2/2 Twill
SW210A1-92a	SC8-24 x 1 x 3	16	12	1600	1350	210	Plain
SW220B-90a	SC8-12 x 2 x 3	18	14	1900	1600	240	2/2 Twill
SW220C-90a	SC8-12 x 2 x 3	18	14	2000	1600	240	4HS
SW220D-90a	SC8-12 x 2 x 3	18	14	2000	1600	240	5HS
SW220B-90b	SC8-12 x 2 x 3	18	14	1900	1600	240	2/2 Twill
SW220C-90b	SC8-12 x 2 x 3	18	14	1900	1600	240	4HS
SW240F-92a	SC8-12 x 2 x 3	20	14	2700	1500	260	8HS
SW280F1-90a	SC8-24 x 1 x 3	20	18	2000	1700	280	8HS