

AGY S2 Glass® fiber Rovings

Glass fiber innovations that give you the edge.

AGY is a leading innovator and producer of specialty glass fibers enabling high-performance composite solutions critical to aviation, defense, architecture, and telecommunications. Flexible production operations and cutting-edge R&D allow AGY to customize solutions and develop next-generation products for your most pressing challenges.

AGY S2 Glass Rovings

These high-strength fibers are uniquely designed to meet demanding performance and cost requirements for applications in every industry.

- Boats
- Composite structures
- High-performance components
- Archery bows
- Snowboards
- High-performance marine applications
- Aerospace interiors
- Radomes
- Fiber optic cables
- Windmill blades
- Helicopter blades
- Golf shafts
- Pressure vessels
- Aircraft flooring
- Aircraft fuel tank

Product solutions

S2 Glass fibers offer a unique combination of properties: strength, impact resistance, stiffness, radar transparency, and resistance to temperature and fatigue. Compared with other reinforcing materials, S2 Glass fibers weigh less than conventional glass fiber and deliver better cost performance than aramid and carbon fibers.

Product description

AGY S2 rovings are available in a broad spectrum of product formats to meet a wide range of application and process needs.

Resin compatibility

AGY has a full array of binder systems offering strong compatibility with a wide selection of resin options. Please contact your AGY representative for details.

Processes

- Weaving
- Hand layup
- Pultrusion
- Filament winding
- Contact molding
- Compression molding
- Uni-directional pre-impregnation



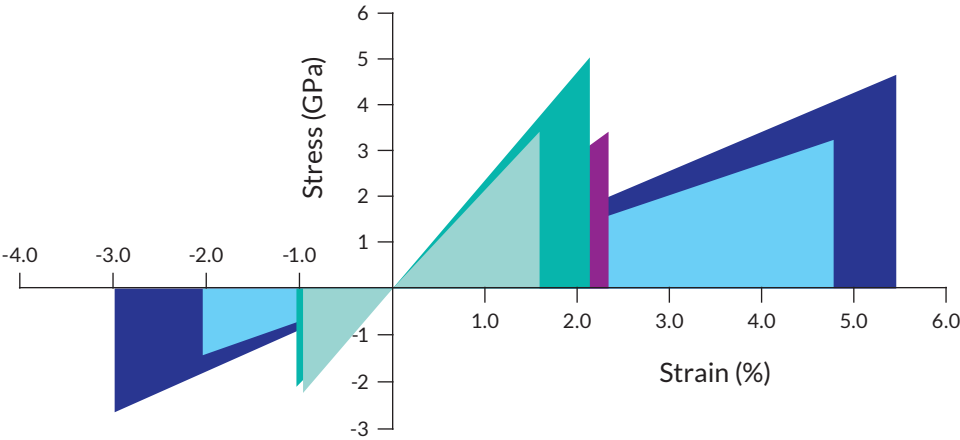
Features	Benefits
30% higher strength and 15% higher tensile modulus vs E Glass at the same fiber volume fraction	Consistent high performance for reliable and durable finished parts
Better fiber toughness, modulus of resilience, and impact deformation than conventional glass fiber	Improved impact capabilities to finished parts and higher composites durability and damage tolerance
Softening point: 1056°C (1932°F) Annealing point: 816°C (1500°F) Strain point: 766°C (1410°F)	Greater fiber tensile strength and stability at elevated temperatures in thermoset and thermoplastic applications
Enhanced flexural stiffness	34% stiffer than conventional glass fiber
Excellent tolerance to damage accumulation	Ability of composite parts to withstand high levels of tension and flexural fatigue without catastrophic failure
20% reduction in dielectric constant over E Glass fibers	Radar transparency
Long shelf life, good machinability, and excellent durability	Consistent performance and reliability
Quick wet-out (penetration of resin into the strand)	Faster, more efficient processing

Product information

Multi-end roving	Nominal yield		End count	Filament diameter	Draw	Nominal package weight		Binder	Resin compatibility
	(yd/lb)	(TEX)				(Microns)	(lb)		
	2500	200	3	9	Outside	16	7.3	365	Polyester, Vinyl Ester, Epoxy
	1250	400	6					449	Epoxy (Amine), Urethane
	750	660	10					463	Epoxy (Anhydride), Phenolic
250	2000	20	933					Polyamides, BMI, PEEK, PEI, PPS, PES, PEK, PAI, Epoxies and LCP	
Zentron—Single-end roving	207	2400	1	16	Inside	16	7.3	VE1	Vinyl Ester, Polyester
	250	2059		24	Inside	26	11.8	721B	Epoxy/Polyester, fast wetting
	413	1200		18	Outside	16	7.3	VE1	Vinyl Ester, Polyester
	675	735		14	Inside/ Outside			561	High-temperature thermoplastics
								758	Epoxy/Polyester, fast wetting
	1400	360		9	Inside/ Outside			561	High-temperature thermoplastics
			758					Epoxy/Polyester, fast wetting	
Lightweight single-end roving	3700	134	1	9	Outside	11	5	449	Epoxy (Amine), Urethane
	1850	270		13	Outside			561	High-temperature thermoplastics
								449	Epoxy (Amine), Urethane
								561	High-temperature thermoplastics

Stress strain curves

- T700 Carbon Fiber
- AS4 Carbon Fiber
- Aramid
- E Glass
- S2 Glass



S2 Glass is a registered trademark of AGY.

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