



S-2 Glass® Fibers

**High Strength Solutions
To Your Toughest
Reinforcement Challenges**

AGY offers a combination of six vital enhanced properties critical for your demanding applications: strength, impact resistance, stiffness, temperature resistance, fatigue resistance and radar transparency.

Compared to conventional glass fiber, the enhanced properties of *S-2 Glass* fibers result in better weight performance. And when compared to aramid and carbon, the enhanced properties of *S-2 Glass* fibers deliver better cost performance.



S-2 Glass Features

S-2 Glass fiber offers significantly more strength than conventional glass fiber. 85% more tensile strength in resin-impregnated strands.

Better fiber toughness, modulus of resistance and impact deformation than conventional glass fiber.

Enhanced stiffness.

Excellent tolerance to damage accumulation.

Benefits

Consistent high performance for reliable and durable finished parts.

Improved impact capabilities to finished parts and higher composite durability and damage tolerance.

Delivers 25% more linear-elastic stiffness than conventional glass fiber.

The ability of composite parts to withstand high levels of tension and flexural fatigue without catastrophic failure.

ZenTron® Features

Efficient processing

Easier hybridization

Quick wet-out

Low fuzz

Benefits

ZenTron fiber has a catenary-free, single-end roving which can translate into more efficient processing for composites that are pultruded, filament wound or molded from fabrics and braids. This results in a more uniform fiber alignment than traditional multi-end rovings.

The single-end construction makes it easier to hybridize with aramids and carbon tows.

Designed to optimize wet-out in epoxy “kiss roll” and resin bath processes. Wets out at least 50% faster than conventional multi-end rovings.

Minimal fiber breakage can reduce fuzz during handling.

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S-2 Glass Fiber Products

Product Form	Product Number	Available TEX (Yields)	Resin Compatibility	Fabrication Process	Specification Number
Roving	365	1980, 400 (250, 1250)	Polyester, Vinyl Ester	Filament winding, weaving, prepregging, pultrusion, compression and vacuum molding, texturization.	MIL-R-60346C
Roving	449	1980, 660, 400 (250, 750, 1250)	Epoxy		
Roving	463	1980, 660, 400 (250, 750, 1250)	Epoxy		
Roving	933	660 (750)	High temperature thermosets (epoxy, BMI, phenolic, cyanate ester), Thermoplastics (PEEK, PEI, BMI, LCP, etc.)		
Single-end roving	758	735 (675)	Epoxy		
Yarn	493	33, 66 (G150 & G75)	Epoxy, Polyester	Weaving, braiding, knitting, texturizing and cording	MIL-Y-1140H MIL-S-13949H
Yarn	636	11 (D450) 33 (G150) 66 (G75)	Must be coronized and treated for resin compatibility		
Yarn	933	66 (G75)	High temperature thermosets (epoxy, BMI, phenolic, cyanate ester), Thermoplastics (PEEK, PEI, BMI, LCP, etc.)		
Yarn (forming cake)	762	22, 33 (E225 & G150)	Chloroprene and RFL Rubber	Rubber reinforcement	
Chopped	401	6.4 mm (1/4")	NA	Ceramic and polymer reinforcement	

Pricing information, product data sheets, Customer Acceptance Standards, customer sources and other application-specific information can be obtained from your AGY sales representative.



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