



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.

## S-2 Glass® Fibers

### 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<br>MIL-S-13949H |
| Yarn                | 636            | 11 (D450)<br>33 (G150)<br>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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For more information, visit our Web site at [www.agy.com](http://www.agy.com)

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