



1000 Quinn Ave. Pocomoke City, MD 21851  
 Voice: 410-957-3669 Fax: 410-957-3424  
[www.hardwirellc.com](http://www.hardwirellc.com)

The ST2 Hardwire® is a high carbon steel cord with a micro-fine brass or AO-brass (Adhesion Optimized) coating. The ST2 wire cord is made by twisting 2 individual wires together at a medium twist angle. This product produces the Hardwire® tape that has the thinnest profile and the lightest weight.

**Characteristics:**

- Best properties in tensile applications.
- Excellent mix of engineering properties - Up to 4 KIPS/inch.
- Extremely conformable – easily bent and holds it's shape.
- Asymmetric shape acts like a screw and gives great mechanical bonding characteristics.
- Excellent fatigue properties in tension and in high-flex situations.
- Great choice for vertical and overhead applications where weight of fabric is critical.
- Best used in applications where thin layers are required.

Single Roving (Cord) Properties							
Description	Filament Diameters (mm)	Cord Dia. (mm)	Break (N)	Break (kN)	Break (kips)	Strain To Failure	Length Per Kg. (m)
ST2	2 @ .3	0.60	445	.445	0.100	2.25%	892.9

Description				Tape Properties			Typical Composite Properties			
Hardwire Item Number	Cord Type	Standard Cord Coatings	Tape Density (wire/cm)	Tape Weight (kg/m <sup>2</sup> )	Tensile Load (kN/cm)	Tape Thickness (T) (cm)	Laminate Density (kg/m <sup>3</sup> )	Laminate Thickness (T) (cm)	Sheet Stress (MPa)	Effective Modulus (GPa)
ST2-4-12	ST2	Brass, AO Brass	1.57	0.18	0.701	0.073	1173.4	0.073	96	9.78
ST2-12-12	ST2	Brass, AO Brass	4.72	0.53	2.10	0.073	1598.0	0.073	288	22.18
ST2-36-12	ST2	Brass, AO Brass	9.06	1.59	6.31	0.073	2871.8	0.073	864	59.37

**Legal Disclaimer:** When properly incorporated into reinforced plastics and cements, Hardwire® products will normally produce properties similar to those shown in the applicable product data sheets, typical of well-made plastic laminates or cementitious composites. However, Hardwire LLC cannot predict or warrant the actual performance of materials that incorporate Hardwire® products due to the multitude of resin choices, manufacturing processes, potential end uses, and other variables not under Hardwire LLC's control. Results may therefore vary. It is the customer's sole responsibility to validate these values through their own manufacturing and testing processes.