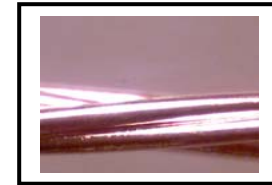




### 3x2 Cords and 3x2 Tapes



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The 3x2 Hardwire® is a high carbon steel cord with a micro-fine brass coating. The 3X2 wire cord is made by twisting 5 individual wires together - 3 straight filaments wrapped by 2 filaments at a high twist angle. The result is an easy to handle cord that combines the best engineering values with great economics. If your application is tension dominated choose the 3x2.

#### Characteristics:

- Excellent mix of engineering properties - Up to 8 KIPS/inch.
- Great stiffness, instant wet-ability, and excellent conformability.
- Works in all resins.
- 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 extrusion and pultrusion applications.

Single Roving (Cord) Properties							
Description	Filament Diameters (mm)	Cord Dia. (mm)	Break (N)	Break (kN)	Break (kips)	Strain To Failure	Length Per Kg. (m)
3x2	All filaments are .35	0.889	1539	1.54	0.3462	2.10%	54.19

Description				Tape Properties				Typical Composite Properties			
Density	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)
Low	3X2-4	3X2	Brass	1.57	0.60	2.42	0.12	1391	0.12	197	16.1
Medium	3X2-12	3X2	Brass	4.72	1.80	7.27	0.12	2250	0.12	591	41.1
High	3X2-20	3X2	Brass	7.87	3.01	10.9	0.12	3110	0.12	985	66.1

**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.