

## Hardwire 3SX-4-12 Low Density Composite

Category : Metal , Ferrous Metal , Carbon Steel , High Carbon Steel , Metal Foam, Mesh, or Honeycomb

### Material Notes:

The 3SX Hardwire is a high carbon steel cord with a micro-fine brass or AO-brass (Adhesion Optimized) coating. The 3SX cord is used where balanced compressive and tensile strengths are required as well as better handling characteristics than the 3S. The 3SX wire cord is made by twisting three identical wire filaments (All filaments are 0.0189 in diameter) together at a longer than usual lay length and then over-wrapping the bundle with a single filament. The result is a cord with lower twist angles and straighter filaments that is the basis for the increased compressive strengths. Characteristics: 3SX tapes have the highest compressive strengths of all Hardwire tapes and tend to match or exceed the tensile properties. Increased mechanical bonding in resins. Better interlaminar shear resistance. The cords do not bloom in failure modes during compression or tension. Laminates exhibit steel like characteristics with high ductility and extreme deflection capability. Very high flexural strength as well as ductile failure modes (laminates tend to bend " not break). The best tape for bending angles and can be done in standard sheet metal breaks. Very boardy feel " excellent for flat surfaces but still conformable enough for curved structures. Better handling characteristics and cutability than 3S tapes. All information provided by Hardwire, LLC.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hardwire-3SX-4-12-Low-Density-Composite.php](http://www.lookpolymers.com/polymer_Hardwire-3SX-4-12-Low-Density-Composite.php)

Physical Properties	Metric	English	Comments
Density	1.46 g/cc	0.0528 lb/in <sup>3</sup>	Laminate Density

Mechanical Properties	Metric	English	Comments
Modulus of Elasticity	16.5 GPa	2400 ksi	Effective Modulus
Flexural Yield Strength	159 MPa	23000 psi	Sheet Stress

## Contact Songhan Plastic Technology Co.,Ltd.

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