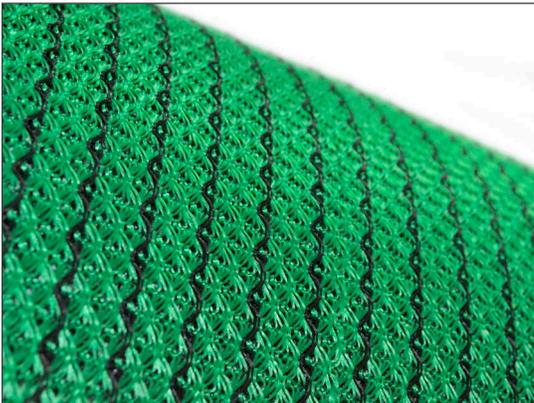


Tensile strength is defined as the resistance of a material to break under tension. For knitted mesh materials used for compost filter sock applications (Figure 1) tensile strength is critical to the performance of the product once delivered to a project site. Inadequate tensile strength can lead to a product rupturing or even completely falling apart when removed from a pallet, moved from one location to another, during the installation process, or even once storm water flow contacts the product.

As the industry leader in high performance and environmentally sustainable products, ensuring that these failures do not happen has led us to create the highest performance tensile strength meshes in the industry for these applications. As part of this process, Filtrex worked closely with our ASTM laboratory partners to ensure our testing adequately reflected the high demands placed on our products, and to ensure we are using the most accurate and reflective standardized tests available.

Filtrex is the first supplier to publish tensile strength performance values for all of its mesh products (Table 1) and has officially transitioned to utilizing ASTM D4595 – *Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method* as its official ASTM test method for tensile strength performance (Figure 2). This particular method is specifically designed to test and evaluate knitted mesh materials, unlike similar ASTM tensile strength test methods that are not well suited for knitted mesh, thereby giving more accurate and applicable results with less variability relative to other methodologies. Machine direction ultimate strength (lbs) is the most common value used to interpret tensile strength for mesh materials. Each of the values reported below are the average of five individual replicates. This ASTM standardized test should become the industry standard for knitted mesh materials used in erosion and sediment control applications.



**Figure 1.** Image of Filtrex SiltSoxx<sup>®</sup> Original Mesh.



**Figure 2.** Image of ASTM D4595 tensile strength test method.

**Table 1.** Summary of mesh product descriptions and tensile strength values for Filtrexx Mesh Products.

Product Description and Tensile Strength							
Product Description				Tensile Strength Results			
Product Family Description	Mesh Description	Diameter	Material	MD-Ult Strength (lbs)	TD-Ult Strength (lbs)	MD-Elongation (%)	TD-Elongation (%)
Filtrexx SiltSoxx®	Original	12"	MFPP	670	423	28.8	64.5
	Extreme	12"	MFPP	1062	797	50.9	69.3
	Natural Original	12"	Cotton Fiber	193	158	27.1	81.1
	Natural Plus	12"	Wood Fiber	210	289	29.3	41.6
Blower Truck	Basic	12"	HDPE	211	78.5	43.9	94.8
	Basic Plus	12"	MFPP	236	223	52.6	73
	Durable	12"	MFPP	545	226	32	88.9
	Natural Original	12"	Cotton Fiber	193	158	27.1	81.1
Powered by Filtrexx™	Durable	12"	MFPP	545	226	32	88.9
	Durable Plus+	12"	MFPP	670	423	28.8	64.5
	Extreme	12"	MFPP	1062	797	50.9	69.3
Compost Blankets	LockDown Netting HDPE	30' x 375'	HDPE	159	59.9	70	179.7
	LockDown Netting PP	30' x 375'	PP	124	73	21	83.1
Wattles	Traffic Marker (Heavy Duty Wattle)	9"	PP	371	480	71.2	73.3
	Natural Original	12"	Cotton	292	43.1	34.9	396

Key: High density polyethylene (HDPE), polypropylene (PP), multifilament polypropylene (MFPP), machine direction (MD), transverse direction (TD), ultimate (Ult), no data (ND).



[www.filtrexx.com](http://www.filtrexx.com) | [info@filtrexx.com](mailto:info@filtrexx.com)