

## Hexcel® HexForce™ 345 Aramid Fabric

Category : Other Engineering Material , Composite Fibers , Polymer , Thermoset , Aramid

**Material Notes:**

Hexcel manufactures aramid fabrics for use in aerospace applications as well as marine, tooling and recreational products where high strength, low weight, and impact resistance are essential. Aramids display excellent dimensional stability with a slightly negative coefficient of thermal expansion ( $-2.4 \times 10^{-6}/^{\circ}\text{C}$ .) They are resistant to chemicals with the exception of a few strong acids and alkalis. Aramids have excellent stability over a wide range of temperatures for prolonged periods. They show essentially no embrittlement or strength loss at temperatures as low as  $-320^{\circ}\text{F}$  ( $-196^{\circ}\text{C}$ ). Aramids do not melt or support combustion but will start to carbonize at approximately  $800^{\circ}\text{F}$  ( $427^{\circ}\text{C}$ ). Information provided by Hexcel

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hexcel-HexForce-345-Aramid-Fabric.php](http://www.lookpolymers.com/polymer_Hexcel-HexForce-345-Aramid-Fabric.php)

Physical Properties	Metric	English	Comments
Thickness	76.2 microns	3.00 mil	
Fiber Count	217 dtex	195 denier	Warp yarn; Kevlar® 49
	217 dtex	195 denier	Fill yarn; Kevlar® 49

Mechanical Properties	Metric	English	Comments
Tensile Impact	112 J/cm	210 ft-lb/in	Warp
	112 J/cm	210 ft-lb/in	Filling

Thermal Properties	Metric	English	Comments
CTE, linear	$-2.40 \mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	$-1.33 \mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	
Maximum Service Temperature, Air	$427^{\circ}\text{C}$	$801^{\circ}\text{F}$	starts to carbonize
Minimum Service Temperature, Air	$-196^{\circ}\text{C}$	$-321^{\circ}\text{F}$	

Descriptive Properties	Value	Comments
Fabric Weight (oz/yd <sup>2</sup> )	1.7	Dry
Nominal Construction (count/in)	34	Warp
	34	Fill
Weave Style	4 Harness Satin	

**Contact Songhan Plastic Technology Co.,Ltd.**

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