

## **Hexcel® HexForce™ 383 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 X 10-6/°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°F (-196°C). Aramids do not melt or support combustion but will start to carbonize at approximately 800°F (427°C). Information provided by Hexcel

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Hexcel-HexForce-383-Aramid-Fabric.php

| Physical Properties | Metric      | English     | Comments              |
|---------------------|-------------|-------------|-----------------------|
| Thickness           | 330 microns | 13.0 mil    |                       |
| Fiber Count         | 2400 dtex   | 2160 denier | Warp yarn; Kevlar® 49 |
|                     | 2400 dtex   | 2160 denier | Fill yarn; Kevlar® 49 |

| Mechanical Properties | Metric    | English      | Comments |
|-----------------------|-----------|--------------|----------|
| Tensile Impact        | 55.5 J/cm | 104 ft-lb/in | Warp     |
|                       | 55.5 J/cm | 104 ft-lb/in | Filling  |

| Thermal Properties               | Metric        | English         | Comments            |
|----------------------------------|---------------|-----------------|---------------------|
| CTE, linear                      | -2.40 μm/m-°C | -1.33 μin/in-°F |                     |
| Maximum Service Temperature, Air | 427 °C        | 801 °F          | starts to carbonize |
| Minimum Service Temperature, Air | -196 °C       | -321 °F         |                     |

| Descriptive Properties          | Value           | Comments |
|---------------------------------|-----------------|----------|
| Fabric Weight (oz/yd2)          | 9.4             | Dry      |
| Nominal Construction (count/in) | 16              | Warp     |
|                                 | 16              | Fill     |
| Weave Style                     | 5 Harness Satin |          |

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



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