



# ALPHA

engineered composites

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## ALPHALAM X 510

### Product Composition

Fluoroplastic Chemical Barrier Compound  
100% virgin PTFE resin

### English

0.020 inch

### Metric

0.51mm

### Physical Property

### Test Method

### English

### Metric

Composite Weight, Nom

Basis Weight

28.6 oz/yd<sup>2</sup>

970g/m<sup>2</sup>

Composite Thickness, Nom

ASTM D1777

0.020 inch

0.51mm

Tensile Strength, Min

ASTM D4851

75 lbs/inch (MD)  
75 lbs/inch (XD)

672 N/50mm [MD]  
672 N/50mm [XD]

Permeation Resistance<sup>1</sup>

ASTM F739

0.0 perm

0.0 ng/N

Trapezoidal Tear Strength, Min

ASTM D4851

62 lbs/inch (MD)  
62 lbs/inch (XD)

276 N [MD]  
276 N [XD]

Adhesion Strength, Min

ASTM D4851

5 lbs/inch

45 N/50mm

Flexural Endurance [-1]

ASTM D4851  
60% to 100%

75% average

Low Temperature Resistance

ASTM D1790  
-100°F [-73°C]

Remains Flexible  
No Delamination

High Temperature Resistance

ASTM D1790  
+600°F [+316°C]

Remains Flexible  
No Delamination

Water Immersion

24 hours @ 73° [23°C]

No Delamination

Mold Resistance

ASTM C665 / C1338  
ASTM G21 [both sides]

No Growth  
No Growth

<sup>1</sup>The AlphaLam X composite was investigated for permeation by an independent laboratory. Sulfuric acid [2N] at 5 psig was used as the test medium. The AlphaLam X composite exhibited zero breakthrough and/or permeation. Test reports available upon request.

DATA SHEET: 14262

REV. A

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\* All values are nominal unless otherwise specified.

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