



## Gilliner™ 1076A Laminate

June 2002

### Description

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Gilliner 1076A is a general purpose fiberglass cloth reinforced polyester laminate.

### Applications

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Aircraft cargo compartment liner.

### Features

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- Good mechanical strength, puncture resistance and corrosion resistance.
- Low cost.
- Burn through resistant.
- Service temperature: To 180°F (82°C)

### Specifications

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Boeing BMS 8-2 Class 1 Grade A

FAR 25.855, Appendix F, Parts I and III (burn through).

### Availability

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Thickness: Inches .013 (.33), .023 (.58), .035 (.89), .045 (1.14), .059 (1.5),  
(mm) .070 (1.8)

Length: Sheets up to 168" (4267 mm). Thicknesses up to .059" (1.5 mm) are available in rolls up to 150' long (69.7 m).

Width: Sheet width is 72" (1828 mm) maximum. Roll stock available up to 60" (1524 mm) width.

Color: Natural.

### Construction

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Resin: Fire resistant polyester.

Reinforcement: Woven Fiberglass cloth.

Surface: Glossy



## Standard Tolerances

|         |                       |
|---------|-----------------------|
| Length: | + 0.5" (12.7 mm), -0" |
| Width:  | + 0.5" (12.7 mm), -0" |
| Color:  | Natural               |

## Alternative Gill Products

| Product Number | Difference  |
|----------------|---|
| Gilliner 1076B | High wear resistant cargoliner qualified to Boeing specification BMS 8-2, CI 3.                                       |
| Gilliner 1366  | High impact resistant cargo liner qualified to Boeing specification BMS 8-2, CI 2, Gr A.                              |
| Gillfab 1367A  | High impact resistant, low smoke and toxicity, cargo liner qualified to Boeing specification BMS 8-223, CI 2, Gr B..  |
| Gillfab 1367B  | Light weight, high impact resistant, low smoke and toxicity, qualified to Boeing Specification BMS 8-223, CI 4, Gr B. |

## Typical Properties of Gilliner™ 1076A

| Property   |   | Test Method    | Type 13         | Type 23      | Type 35      |
|--|---|----------------|-----------------|--------------|--------------|
| <b>Physical</b>                                  |   |                |                 |              |              |
| Thickness, in. (mm)                              |   |                | 0.011 (0.2794)  | 0.021 (0.53) | 0.031 (0.79) |
| Weight, psf (kg/m <sup>2</sup> )                 |   |                | 0.099 (0.00417) | 0.21 (1.02)  | 0.31 (1.51)  |
| <b>Mechanical</b>                                |   |                |                 |              |              |
| Impact Resistance ft-lb                          |   | BSS7326        | 8.8 (11.93)     | 11.5 (15.59) | 16.5 (22.37) |
| Edge Bearing Strength ksi                        | W | BMS8-2, Class2 | 39.2 (270)      | 46.0 (317)   | 45.7 (315)   |
|  | F | BMS8-2, Class2 | 37.1 (256)      | 39.6 (273)   | 43.6 (301)   |
| Bond Strength, lb. (n)                           | W | BAC 5010 Ty 38 | 528 (239.5)     | 1047 (4657)  | 981 (43)     |
|  | F |                | 498 (2215)      | 910 (4048)   | 921 (4097)   |
| Tensile Strength, ksi (mpa)                      | W | ASTM D638      | 50.7 (349.56)   | 76 (524)     | 75 (517)     |
|  | F |                | 49.0 (337.84)   | 57 (393)     | 58 (400)     |
| Flexural Strength, ksi (mpa)                     | W | ASTM D638      | NR              | NR           | NR           |
|  | F |                | NR              | NR           | NR           |
| Flexural Modulus, msi.<br>(mpax10 <sup>3</sup> ) | W | ASTM D638      | NR              | NR           | NR           |
|  | F |                | NR              | NR           | NR           |
| Water Absorbtion, %, max. avg.                   |   | ASTM D570      | 0.76            | 0.59         | 0.65         |
| Flammability, 60 sec. Ver.                       |   | BSS 7230       |                 |              |              |
| Extinguish Time (sec.) max                       |   |                | 0.37            | 0            | 0            |
| Burn Length in. (mm) max                         |   |                | 1.8 (45.72)     | 1.4 (35.6)   | 1.5 (38.1)   |
| Drip Extinguish (sec.)                           |   |                | No Drips        | No Drips     | No Drips     |
| Flammability, 30 sec. 45 deg.                    |   |                |                 |              |              |
| Extinguish Time (sec.)                           |   |                | 0               | 0            | 0            |
| Afterglow (sec.)                                 |   |                | 0               | 0            | 0            |
| Flame Penetration                                |   |                | None            | None         | None         |



## Typical Properties of Gilliner™ 1076A

| Property   |   | Test Method    | Type 45      | Type 59      | Type 70      |
|--|---|----------------|--------------|--------------|--------------|
| <b>Physical</b>                                  |   |                |              |              |              |
| Thickness, in. (mm)                              |   |                | 0.043 (1.09) | 0.053 (1.34) | 0.061 (1.55) |
| Weight, psf (kg/m <sup>2</sup> )                 |   |                | 0.43 (2.10)  | 0.53 (2.59)  | 0.61 (2.93)  |
| <b>Mechanical</b>                                |   |                |              |              |              |
| Impact Resistance ft-lb                          |   | BSS7326        | 34.3 (46.51) | 37.0 (50.17) | 40.5 (54.92) |
| Edge Bearing Strength ksi                        | W | BMS8-2, Class2 | 47.4 (327)   | 48.6 (335)   | 44.6 (308)   |
|  | F | BMS8-2, Class2 | 41.9 (289)   | 46.3 (319)   | 45.4 (313)   |
| Bond Strength, lb. (n)                           | W | BAC 5010 Ty 38 | 1043 (4639)  | 961 (4275)   | 1027 (4568)  |
|  | F |                | 916 (4075)   | 1072 (4768)  | 1042 (4635)  |
| Tensile Strength, ksi (mpa)                      | W | ASTM D638      | 69 (476)     | 63 (434)     | 68 (469)     |
|  | F |                | 59 (407)     | 56 (386)     | 50 (345)     |
| Flexural Strength, ksi (mpa)                     | W | ASTM D638      | 45 (310)     | 48 (331)     | 42 (290)     |
|  | F |                | 47 (324)     | 42 (290)     | 37 (255)     |
| Flexural Modulus, msi.<br>(mpax10 <sup>3</sup> ) | W | ASTM D638      | 1.9 (13.1)   | 2.4 (16.5)   | 2.4 (16.5)   |
|  | F |                | 2.2 (15.2)   | 2.1 (14.5)   | 2.2 (15.2)   |
| Water Absorbtion, %, max. avg.                   |   | ASTM D570      | 0.67         | 0.46         | 0.45         |
| <b>Flammability, 60 sec. Ver.</b>                |   |                |              |              |              |
| Extinguish Time (sec.) max                       |   |                | 0            | 0            | 0            |
| Burn Length in. (mm) max                         |   |                | 0.1 (2.5)    | 1.6 (40.6)   | 1.6 (40.6)   |
| Drip Extinguish (sec.)                           |   |                | No Drips     | No Drips     | No Drips     |
| <b>Flammability, 30 sec. 45 deg.</b>             |   |                |              |              |              |
| Extinguish Time (sec.)                           |   |                | 0            | 0            | 0            |
| Afterglow (sec.)                                 |   |                | 0            | 0            | 0            |
| Flame Penetration                                |   |                | None         | None         | None         |

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