

# BA 500BC

PTFE Coated Fiberglass “Beta Cloth”

## Description:

BA 500BC is a PTFE-coated fiberglass fabric, also called Beta cloth, woven tightly from a Beta® fiberglass substrate. It is used for space MLI, MMOD shielding, atomic oxygen mitigation and surface protection, and it is silicone free. At 8 mil it has a breaking strength of 95 x 90 lb/in and is rated -240 to 500 °F.



## Features & Benefits:

- Strong and tear-resistant: 95 x 90 lb/in breaking strength and 4 x 4 lb trapezoidal tear at 8 mil
- Heat-dissipative white surface: thermal emittance > 0.88, solar absorptance < 0.15; high temperature resistance, rated -240 to 500 °F
- High resistance to thermocycling, plasma, solar and vacuum, and UV radiation
- Chemically inert, non-flammable / fire resistant, low electrical loss
- Proven in space: silicone free, 30+ years of space heritage

## Applications:

Spacecraft MLI (multi-layer insulation)

MMOD shielding and atomic oxygen (AO) mitigation

Boom and lunar infrastructure surface protection

Space cargo containers, packaging and light blocking

| Construction/ Typical Properties | Value                  |                      | Test Method    |
|----------------------------------|------------------------|----------------------|----------------|
| Color(s):                        | White                  |                      |                |
|                                  | Imperial               | Metric               |                |
| Standard Widths:                 | 51 in                  | 1295 mm              |                |
| Coated Weight:                   | 7.6 oz/yd <sup>2</sup> | 260 g/m <sup>2</sup> | FTMS 191A-5041 |
| PTFE Weight:                     | 1.5 oz/yd <sup>2</sup> | 50 g/m <sup>2</sup>  | FTMS 191A-5041 |
| Thickness:                       | 8 mil                  | 0.205 mm             | FTMS 191A-5030 |
| Breaking Strength (Min. Avg):    | 95 x 90 lb/in          | 165 x 160 N/cm       | FTMS 191A-5102 |
| Trapezoidal Tear (Min. Avg):     | 4 x 4 lb               | 17.8 x 17.8 N        | FTMS 191A-5136 |
| Elongation at Break (Min. Avg):  | 2.0 x 2.0 %            |                      |                |
| Abrasion Resistance:             | > 750 Taber Cycles     |                      | FTMS 191A-5308 |
| Thermal Emittance:               | > 0.88                 |                      | ASTM E408      |
| Solar Absorptance:               | < 0.15                 |                      | ASTM E903      |
| Solar Transmittance:             | < 0.35                 |                      | ASTM E903      |
| Nominal PTFE Content:            | 17 - 22 %              |                      |                |
| Thermal Conductivity*:           | 0.14 W/m·K             |                      |                |
| Temperature Range**:             | -240 to +500°F         | -150 to +260°C       |                |

Made for Bron Aerotech by Versiv

\*Not a routine test

\*\*Based on widely available industry data. Testing required for exact application as values vary based on pressure and other environmental factors.

The physical properties listed above are typical values and are not to be construed as specifications. Our suggestions and recommendations for use are based on tests we believe to be reliable. Bron Aerotech does not warrant that the product is fit for any particular purpose. Purchaser must determine suitability of the product for the intended use. Bron Aerotech, Inc. assumes no liability for claims beyond the replacement value of our product proved to be defective. Manufactured for and distributed by Bron Aerotech.

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