

Bruck
Textiles



Structural

Protection - Comfort - Breathability - Durability



Bruck Textiles

www.brucktextiles.com.au

The BRUCK Structural outer shell range minimum performance data:

| Property | Method ¹ | Performance |
|--|---|--|
| Residual Strength After exposure to radiant heat | ISO 13934-1 ISO 6942 Method A @ 10 kW/m ² | ≥ 450 N |
| Abrasion Resistance | ISO 12947-2 @ 12 kPa | ≥ 20,000 cycles |
| Flame Spread - Surface Ignition | ISO 15025 Procedure A | No hole formation No molten or flaming debris Average afterflame ≤ 2s Average afterglow ≤ 2s |
| Flame Spread - Edge Ignition | ISO 15025 Procedure B | Char length ≤ 100mm No molten or flaming debris Average afterflame ≤ 2s |
| Heat Resistance | ISO 17493 5 minutes @ 260°C | No melt No drip No ignition Shrinkage ≤ 5% |
| Dimensional Change | ISO 5077 | ≤ 3% warp and weft |
| Surface Wetting | ISO 4920 | ≥ 4 |
| Penetration By Chemicals ² | AS/NZS ISO 6530 40% NaOH at 20°C 36% HCl at 20°C 37% H ₂ SO ₄ at 20°C O-xylene 100% at 20°C | > 80% run off |
| BRUCK Structural fabrics meet the requirements of AS/NZS 4967-2009 | | |

¹ After pretreatment according to AS2001.5.4-2005 Procedure 5A, E: 5 Cycles.

² Tested in assembly.

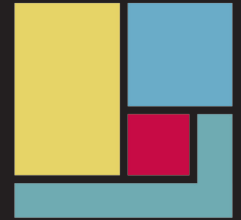
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| Fabric | Composition | Width [cm] | Weight [g/m ²] | Weave | Tensile Strength ISO 13934-1 [N] | Tear Strength ISO 4674-1 Method B [N] |
|--------------------------------|---|------------|----------------------------|---------------------|----------------------------------|---------------------------------------|
| MELBA ENFORCER® PBI Gold® | 40% PBI®/ 60% Kevlar® | 147 | 220 | Twill Rip-resist | warp > 1900 weft > 1500 | warp > 115 weft > 100 |
| MELBA ENFORCER® PBI Matrix® | 40% PBI®/ 60% Kevlar® p-Aramid matrix | 147 | 205 | Plain | warp > 1400 weft > 1500 | warp > 115 weft > 110 |
| MELBA FORTRESS® 3G | Nomex® IIIA p-aramid grid | 147 | 220 | 3-Dimensional | warp > 1000 weft > 1200 | warp > 75 weft > 140 |
| MELBA FORTRESS® 3D | Nomex® IIIA | 147 | 220 | 3-Dimensional | warp > 1000 weft > 1200 | warp > 55 weft > 130 |
| MELBA FORTRESS® 260 | Nomex® IIIA | 147 | 260 | Twill Rip-resist | warp > 1950 weft > 1050 | warp > 135 weft > 145 |
| MELBA FORTRESS® 205 | Nomex® IIIA | 147 | 205 | Twill Rip-resist | warp > 1400 weft > 790 | warp > 75 weft > 65 |



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BRUCK engineered solutions for Structural Firefighting are much more than just fabrics - they're systems. The overall performance of your turnout gear is the sum of each individual layer. For this reason, we are continually evolving fabrics whose high performance properties can be synergised from the inner most lining, through the thermal and moisture barriers, to the outer shell.

Tough, durable and dependable systems are extremely important, as is how your gear feels against the skin and moves with your body. BRUCK fabrics are developed to last and feel good to wear. Our systems minimise weight and maximise breathability, thereby minimising metabolic heat stress, while you remain protected from flame, radiant heat, and chemical splash. BRUCK products are proven tough to withstand the challenges of Structural Firefighting.

BRUCK partners with the global leaders in inherent flame retardant fibre technology and high quality yarn producers to bring you the MELBA ENFORCER® and MELBA FORTRESS® collection of outer shells and the MELBA INSUL-TEX® range of thermal liners and scrims.

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