ELLIOTTS

bsi. ISO 9001 Quality Management Systems CERTIFIED FS 740782

Material Data Sheet

# ZETEL® ZX Anti-Static

Elliotts ZETEL® ZX is a flame retardant Anti-Static two layer heavy duty durable, breathable, waterproof and windproof fabric. Garments made from ZETEL® ZX are all seam sealed ensuring you stay dry in wet conditions.

| Technical Data | |
|---|---|
| Material description | 300D Oxford Breathable PU Coating Waterproof Fabric |
| Fibre content | 100% Polyester with Carbon |
| Anti-Static properties | ZETEL® ZX incorporates Core Conducting yarns which offer far superior performance and durability when compared to traditional surface conducting fabrics.<br><br>Core Conducting yarns have a carbon core and polyester sheath. The carbon is therefore woven inside the material which offers and additional level of protection above the polyester sheath.<br><br>ZETEL® ZX is a superior anti-static fabric that offers extra durability, superior anti-static protection and improved safety. ZETEL® ZX conforms to the requirements of EN 1149-3:2004 Protective clothing. Electrostatic properties. Test methods for measurement of charge decay.<br><br>**What is the difference between EN 1149-1:1996 and EN 1149-3:2004**<br><br>• EN 1149-1:1996 Protective clothing. Electrostatic properties. Surface resistivity (test methods and requirements)<br>• EN 1149-3:2004 Protective clothing. Electrostatic properties. Test methods for measurement of charge decay.<br><br>EN 1149-1:1996 is the traditional testing method which places two electrodes on the surface of the fabric, and measures the current between the electrodes. If the current passes from one electrode to the other, then the fabric is conductive, and therefore antistatic in its ability to carry static charge away from the fabric.<br><br>EN 1149-3:2004 is the latest testing method for testing modern superior Core Conducting yarns. Core Conducting yarns have a carbon core, with a polyester sheath. The static leaks through the polyester sheath to the carbon core and is carried away the same as conventional carbon or steel yarns. The polyester sheath is also an insulating layer, which functions to prevent a high static load from “jumping” off the traditional surface mounted conducting yarns in severe situations.<br><br>In a high static load situation where a body may not be earthed, conventional anti-static yarns can still be the source of a spark jumping from the garment. i.e. core conducting yarns offer higher resistance to incendiary discharge in an ungrounded state than conventional anti-static fabrics. |

ELLIOTTS

bsi. ISO 9001 Quality Management Systems CERTIFIED FS 740782

Material Data Sheet

# ZETEL® ZX Anti-Static

| Test | Methods | Unit | Requirements | Result |
|---|---|---|---|---|
| Width | AS-2001.2.12 | mm | <1450 | 1500 |
| Mass | AS-2001.2.13 | gm/m2 | 185-205 | 190 |
| Tensile strength<br>Warp<br>Weft | AS-2001.2.3.1 | N/5.0 cm | >1100<br>>900 | <br>1350<br>950 |
| Wing rip tear<br>Warp<br>Weft | AS-2001.2.10 | N | <br>>60<br>>55 | <br>72<br>60 |
| Static waterhead | AS-2001.2.17 | kpa | >100 | 200 |
| Breathability | ASTM E96 BW | g/m2/24 hours | | 5000 |
| Water repellency | AS-2001.2.16 | % | >90 | 100 |
| Burning behaviour (ease of ignition) | AS-2755.1 | Number ignitions | Warp: No ignition-20sec<br>Weft: No ignition-20sec | No ignition<br>No ignition |
| Shielding factor<br>Charge decay time | prEN-1149.3<br>prEN-1149.3 | Sec half decay time<br>t50Sec | >0.2<br><4.0 | 0.80<br><0.01 |
| Colourfastness to wash<br>Colourfastness to perspiration<br>Colourfastness to light | AS-2001.4.15<br>AS-2001.4.17<br>AS-2001.4.21 | Grey scale<br>Grey scale<br>Grey scale | 4 (min)<br>4 (min)<br>4 (min) | 4-5<br>4-5<br>5 |
| Chromaticity<br>Luminance | EN-471:2003<br>Yellow EN-471:2003 | Colour space co-ordinates<br>% | Within specified x, y co-ordinates<br>>70 | x-0.3790<br>y-0.5369<br>1.096 |

**Elliott Australia Pty Ltd**
23 Vauxhall Street, Virginia, QLD 4014 Australia