

PRODUCT REFERENCE: *E-TEC*[®] PA 4332

DESCRIPTION: An electrically conductive compound based on a dispersion of a conductive carbon black in a modified polyamide 6 polymer.

APPLICATIONS: *E-TEC*[®] PA 4332 is suggested for the extrusion or injection moulding of rigid articles requiring a degree of permanent electrical conductivity. Such products find application in areas where the accumulation of static electrical charges on conventional polymers may cause problems, for example in the handling of static sensitive electronic devices or explosives. *E-TEC*[®] PA 4332 can be used to produce articles having a limited degree of self-lubricating character. It can also be used at higher operating temperatures than is normal for conductive compounds based on polyolefins.

ADDITION RATE: *E-TEC*[®] PA 4332 is designed for use as a compound at 100% addition rate. In some very limited circumstances it may be possible to dilute this product with other polymers although this will invariably reduce the conductivity of the end article.

PROCESSING: Suggested extrusion and moulding temperatures are in line with those for unmodified polyamide 6 polymers, typically 230 to 260 °C. **NOTE : PROCESSING ABOVE RECOMMENDED TEMPERATURES AND/OR LONG DWELL TIMES MAY SEVERELY REDUCE THE MECHANICAL PROPERTIES OF THE FINISHED PRODUCT.** When injection moulding, generously sized gates will minimise any reduction in conductivity arising from processing. Polyamides are sensitive to moisture pick up and for some applications it may be found necessary to pre-dry this product using a temperature of up to 90 °C for 4 hours or more.

TYPICAL PROPERTIES:

Heat Distortion Temperature:	65 °C	(ISO 75 method A)
Surface Resistance:	1x 10 ⁴ ohm	(DIN 53482)
Tensile strength:	55 Mpa	(ISO 527)
Elongation at break:	25 %	(ISO 527)
Flexural Modulus:	3200 MPa	(ISO 178)
Flexural Strength:	70 MPa	(ISO 178)
Impact Resistance:	20 kJ/m ²	(ISO 180)
Bulk Density:	660 kg.m ⁻³	(ASTM D1895)

Packaging: *E-TEC*[®] PA 4332 is normally packed in 25kg polyvalve bags. It should be stored in a clean dry area.

For Health and Safety information, please refer to the appropriate COLLOIDS Material Safety Data Sheet.

This product information is based on our general experience and does not constitute a specification. Since many factors affect the use of our products, no warranty is given or implied with respect to this information or patent infringement. We do not accept liability for any loss or damage arising from the use of this information. All sales are subject to our Standard Terms and Conditions of Sale. *E-TEC*[®] is a Registered Trademark of Colloids Limited. TDS *E-TEC*[®] PA 4332 – 21/05/09