

## PRODUCT REFERENCE: *E-TEC*® PP 50/CON/2

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

**APPLICATIONS:** *E-TEC*® PP 50/CON/2 is suggested for the injection moulding of rigid articles requiring a degree of permanent electrical conductivity such as tote boxes and other containers. 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*® PP 50/CON/2 has a higher flexural modulus (“stiffness”) than other *E-TEC*® PP grades and is therefore suitable where additional physical rigidity is required.

**ADDITION RATE:** *E-TEC*® PP 50/CON/2 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 moulding temperatures are in line with those for unmodified polypropylene polymers, typically 190 to 240 °C. When injection moulding, generously sized gates will minimise any reduction in conductivity arising from processing. For some applications it may be found necessary to pre-dry this product using a temperature of up to 80 °C for 3 to 4 hours.

### TYPICAL PROPERTIES:

<b>Heat Distortion Temperature:</b>	75 °C	(ISO 75 method A)
<b>Surface Resistance:</b>	3 x 10 <sup>3</sup> ohm	(DIN 53482)
<b>Tensile strength:</b>	23Mpa	(ISO 527 )
<b>Izod Impact Strength (notched):</b>	10 KJ/m <sup>2</sup>	(ISO 180)
<b>Elongation at break:</b>	15 %	(ISO 527)
<b>Melt Flow Rate:</b>	15 g/10 min.	(ISO 1133 – 230 °C/5kg)
<b>Bulk Density:</b>	650 kg.m <sup>-3</sup>	(ASTM D1895)
<b>Density:</b>	1.16 g.cm <sup>-3</sup>	

**Packaging:** *E-TEC*® PP 50/CON/2 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 Trademark of Colloids Limited. TDS *E-TEC*® PP 50/CON/2 – 21/05/09