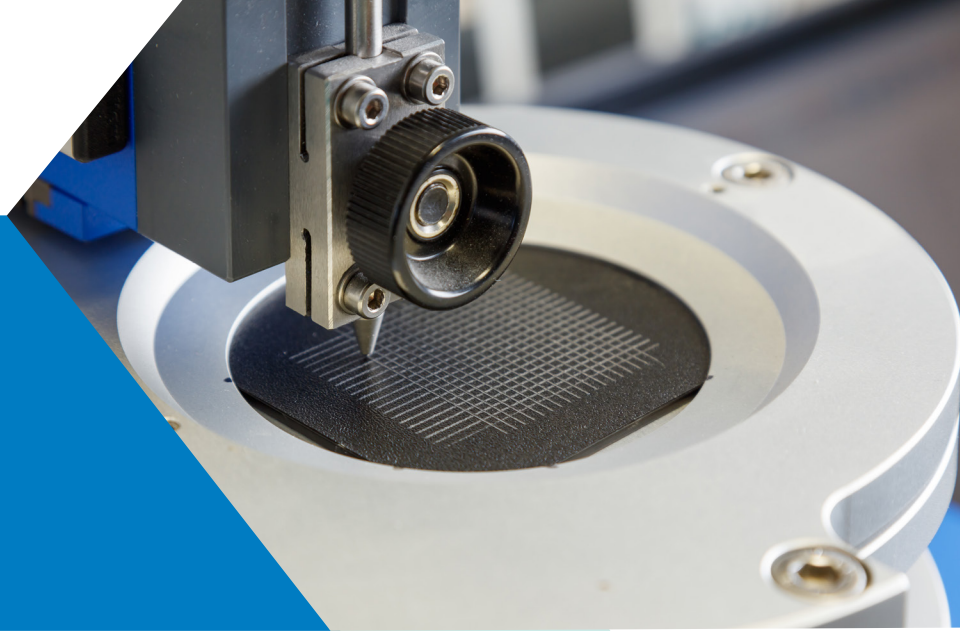


# Technical Services



Test Description		Test Method
Fourier Transform Infrared Spectroscopy (FTIR) <ul style="list-style-type: none"> <li>Material Identification</li> </ul>	-	-
Differential Scanning Calorimetry (DSC) <ul style="list-style-type: none"> <li>Glass Transition</li> <li>Melting Point</li> <li>Oxidative Induction Time</li> <li>Semi-Crystalline Polymer Content</li> </ul>	°C °C Mins %	-
X-ray Fluorescence (XRF)	ppm	-
UV/Vis/NIR Spectrophotometer <ul style="list-style-type: none"> <li>Heat Build-Up (HBU)</li> <li>Total Solar Reflectance (TSR)</li> <li>'End of Life' Recyclability</li> </ul>	°C % -	-
CIELAB Colour Determination <ul style="list-style-type: none"> <li>L*a*b* Colour values</li> <li>Colour matching services</li> </ul>		
Extrusion Compounding <ul style="list-style-type: none"> <li>Single Screw</li> <li>Twin Screw</li> </ul>	-	-
Injection Moulding <ul style="list-style-type: none"> <li>Dog-bone Specimen's Type 1A</li> <li>Test Bar Specimen's Type 1</li> <li>Textured Plaque 74 x 74mm</li> <li>Smooth Plaque 74 x 74mm</li> </ul>	-	-
Melt Flow Index <ul style="list-style-type: none"> <li>Up to 350°C</li> <li>1.2kg, 2.16kg, 5kg, 10kg, 15kg, 21.6kg</li> </ul>	g/10min	ISO 1133
Izod Impact Strength <ul style="list-style-type: none"> <li>Notch A or Unnotched</li> <li>23°C, 0°C, -10°C, -20°C, -30°C, -40°C</li> </ul>	kJ/m <sup>2</sup>	ISO 180
Charpy Impact Strength <ul style="list-style-type: none"> <li>Notch A or Unnotched</li> <li>23°C, 0°C, -10°C, -20°C, -30°C, -40°C</li> </ul>	kJ/m <sup>2</sup>	ISO 179
Tensile Properties <ul style="list-style-type: none"> <li>Tensile Modulus</li> <li>Tensile Strength</li> <li>Tensile Strain</li> </ul>	N/mm <sup>2</sup>	ISO 527

Test Description		Test Method
Flexural Properties <ul style="list-style-type: none"> <li>Flexural Modulus</li> <li>Flexural Strength</li> </ul>	N/mm <sup>2</sup>	ISO 178
Heat Deflection Temperature <ul style="list-style-type: none"> <li>Flatwise, 0.45MPa, 120°C/hour</li> <li>Flatwise, 1.8MPa, 120°C/hour</li> </ul>	°C	ISO 75
Vicat Softening Temperature <ul style="list-style-type: none"> <li>10N, 50°C/hour</li> <li>50N, 50°C/hour</li> </ul>	°C	ISO 306
Shore Hardness <ul style="list-style-type: none"> <li>Shore A</li> <li>Shore D</li> </ul>	-	ISO 868
Density	g/cm <sup>3</sup>	ISO 1183
Bulk Density	g/cm <sup>3</sup>	Internal
Ash Content (600°C)	%	Internal
Moisture Content	%	Internal
Shrinkage <ul style="list-style-type: none"> <li>80mm test bar, parallel flow</li> </ul>	%	Internal
Accelerated Weathering (QUV) <ul style="list-style-type: none"> <li>UV, Condensation, Water Spray</li> <li>Colour Change (Spectrophotometer)</li> </ul>	ΔE	ISO 4892
Outdoor Weathering <ul style="list-style-type: none"> <li>Lincolnshire, South-facing, Wall-mounted</li> <li>CIELAB Colour Change (Spectrophotometer)</li> </ul>	ΔE	Internal
Scratch Resistance Test <ul style="list-style-type: none"> <li>Cross-Hatch Scratch &amp; L* Colour Change (Spectrophotometer)</li> </ul>	ΔE	Internal
Flammability <ul style="list-style-type: none"> <li>Horizontal Burn</li> <li>V2, V1, V0</li> </ul>	Mins Class	Internal