

# Makroblend® UT408

Polycarbonate + PET

Covestro - Polycarbonates

## Message:

(PC+PET) blend, unreinforced; UV-stabilized; impact modified; high flow; injection molding grade; good impact strength; dimensional stability and chemical resistance. Suitable for some food contact applications (contact Covestro for more information).

| General Information                        |                            |                        |              |
|--------------------------------------------|----------------------------|------------------------|--------------|
| UL YellowCard                              | E41613-101010275           |                        |              |
| Additive                                   | Impact Modifier            |                        |              |
|                                            | UV Stabilizer              |                        |              |
| Features                                   | Food Contact Acceptable    |                        |              |
|                                            | Good Chemical Resistance   |                        |              |
|                                            | Good Dimensional Stability |                        |              |
|                                            | Good Impact Resistance     |                        |              |
|                                            | High Flow                  |                        |              |
|                                            | Impact Modified            |                        |              |
| RoHS Compliance                            | RoHS Compliant             |                        |              |
| Processing Method                          | Injection Molding          |                        |              |
| Physical                                   | Nominal Value              | Unit                   | Test Method  |
| Density (23°C)                             | 1.22                       | g/cm <sup>3</sup>      | ISO 1183     |
| Melt Volume-Flow Rate (MVR) (270°C/5.0 kg) | 20.0                       | cm <sup>3</sup> /10min | ISO 1133     |
| Molding Shrinkage <sup>1</sup>             |                            |                        | ISO 2577     |
| Across Flow                                | 0.60 to 0.80               | %                      |              |
| Flow                                       | 0.60 to 0.80               | %                      |              |
| Water Absorption                           |                            |                        | ISO 62       |
| Saturation, 23°C                           | 0.50                       | %                      |              |
| Equilibrium, 23°C, 50% RH                  | 0.20                       | %                      |              |
| Mechanical                                 | Nominal Value              | Unit                   | Test Method  |
| Tensile Modulus (23°C)                     | 2400                       | MPa                    | ISO 527-2/1  |
| Tensile Stress                             |                            |                        | ISO 527-2/50 |
| Yield, 23°C                                | 59.0                       | MPa                    |              |
| Break, 23°C                                | 64.0                       | MPa                    |              |
| Tensile Strain (Yield, 23°C)               | 5.5                        | %                      | ISO 527-2/50 |
| Nominal Tensile Strain at Break (23°C)     | 100                        | %                      | ISO 527-2/50 |
| Flexural Modulus <sup>2</sup> (23°C)       | 2350                       | MPa                    | ISO 178      |
| Flexural Stress <sup>3</sup>               |                            |                        | ISO 178      |
| 23°C                                       | 88.0                       | MPa                    |              |

| 3.5% Strain,23°C                          | 71.0                     | MPa               |              |
|-------------------------------------------|--------------------------|-------------------|--------------|
| Impact                                    | Nominal Value            | Unit              | Test Method  |
| Notched Izod Impact Strength <sup>4</sup> |                          |                   | ISO 7391     |
| -30°C                                     | 10                       | kJ/m <sup>2</sup> |              |
| 23°C                                      | 60                       | kJ/m <sup>2</sup> |              |
| Thermal                                   | Nominal Value            | Unit              | Test Method  |
| Heat Deflection Temperature               |                          |                   |              |
| 0.45 MPa, Unannealed                      | 131                      | °C                | ISO 75-2/B   |
| 1.8 MPa, Unannealed                       | 109                      | °C                | ISO 75-2/A   |
| Vicat Softening Temperature               | 142                      | °C                | ISO 306/B120 |
| CLTE                                      |                          |                   | ISO 11359-2  |
| Flow : 23 to 55°C                         | 7.0E-5                   | cm/cm/°C          |              |
| Transverse : 23 to 55°C                   | 8.0E-5                   | cm/cm/°C          |              |
| Thermal Conductivity <sup>5</sup> (23°C)  | 0.20                     | W/m/K             | ISO 8302     |
| Electrical                                | Nominal Value            | Unit              | Test Method  |
| Surface Resistivity                       | 1.0E+16                  | ohms              | IEC 60093    |
| Volume Resistivity (23°C)                 | 1.0E+16                  | ohms·cm           | IEC 60093    |
| Electric Strength (23°C, 1.00 mm)         | 34                       | kV/mm             | IEC 60243-1  |
| Relative Permittivity                     |                          |                   | IEC 60250    |
| 23°C, 100 Hz                              | 3.20                     |                   |              |
| 23°C, 1 MHz                               | 3.10                     |                   |              |
| Dissipation Factor                        |                          |                   | IEC 60250    |
| 23°C, 100 Hz                              | 1.3E-3                   |                   |              |
| 23°C, 1 MHz                               | 0.014                    |                   |              |
| Comparative Tracking Index (Solution A)   | 375                      | V                 | IEC 60112    |
| Flammability                              | Nominal Value            | Unit              | Test Method  |
| Flame Rating (1.50 mm)                    | HB                       |                   | UL 94        |
| NOTE                                      |                          |                   |              |
| 1.                                        | 600 bar                  |                   |              |
| 2.                                        | 2.0 mm/min               |                   |              |
| 3.                                        | 2.0 mm/min               |                   |              |
| 4.                                        | Based on ISO 180-A, 3 mm |                   |              |
| 5.                                        | Cross-flow               |                   |              |

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