

# ASTALON™ E1600MU

Polycarbonate  
Marplex Australia Pty. Ltd.

Message:

ASTALON™ E1600MU is an ultra high viscosity, branched polycarbonate grade specifically designed for multi-wall sheet and profile extrusion applications. E1600MU offers an excellent balance of transparency, toughness, UV stability, flame retardancy and processability.

| General Information                              |                      |                   |             |
|--------------------------------------------------|----------------------|-------------------|-------------|
| Additive                                         | UV Stabilizer        |                   |             |
| Features                                         | Flame Retardant      |                   |             |
|                                                  | Good Processability  |                   |             |
|                                                  | Good Toughness       |                   |             |
|                                                  | Good UV Resistance   |                   |             |
|                                                  | Low Flow             |                   |             |
|                                                  | Medium Clarity       |                   |             |
|                                                  | Ultra High Viscosity |                   |             |
| Uses                                             | Profiles             |                   |             |
|                                                  | Sheet                |                   |             |
| Processing Method                                | Profile Extrusion    |                   |             |
|                                                  | Sheet Extrusion      |                   |             |
| Physical                                         | Nominal Value        | Unit              | Test Method |
| Specific Gravity                                 | 1.20                 | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)         | 5.0                  | g/10 min          | ASTM D1238  |
| Hardness                                         | Nominal Value        | Unit              | Test Method |
| Rockwell Hardness (R-Scale)                      | 123                  |                   | ASTM D785   |
| Mechanical                                       | Nominal Value        | Unit              | Test Method |
| Tensile Strength <sup>1</sup> (3.20 mm)          | 65.0                 | MPa               | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break, 3.20 mm) | 140                  | %                 | ASTM D638   |
| Flexural Modulus <sup>3</sup> (6.40 mm)          | 2300                 | MPa               | ASTM D790   |
| Flexural Strength <sup>4</sup> (6.40 mm)         | 93.0                 | MPa               | ASTM D790   |
| Impact                                           | Nominal Value        | Unit              | Test Method |
| Notched Izod Impact (3.20 mm)                    | 800                  | J/m               | ASTM D256   |
| Gardner Impact (3.20 mm)                         | 85.0                 | J                 | ASTM D3029  |
| Thermal                                          | Nominal Value        | Unit              | Test Method |
| Deflection Temperature Under Load                |                      |                   | ASTM D648   |
| 0.45 MPa, Unannealed, 6.40 mm                    | 150                  | °C                |             |
| 1.8 MPa, Unannealed, 6.40 mm                     | 135                  | °C                |             |

| Flammability           | Nominal Value | Test Method |
|------------------------|---------------|-------------|
| Flame Rating (1.60 mm) | V-2           | UL 94       |

| Extrusion             | Nominal Value | Unit |
|-----------------------|---------------|------|
| Drying Temperature    | 120 to 125    | °C   |
| Drying Time           | 4.0 to 6.0    | hr   |
| Cylinder Zone 1 Temp. | 240 to 250    | °C   |
| Cylinder Zone 2 Temp. | 245 to 270    | °C   |
| Cylinder Zone 3 Temp. | 250 to 270    | °C   |
| Cylinder Zone 4 Temp. | 260 to 275    | °C   |
| Cylinder Zone 5 Temp. | 250 to 270    | °C   |
| Melt Temperature      | 260 to 280    | °C   |
| Die Temperature       | 240 to 270    | °C   |
| Take-Off Roll         | 80.0 to 90.0  | °C   |
| Back Pressure         | 10.0 to 25.0  | MPa  |

| NOTE |            |  |
|------|------------|--|
| 1.   | 20 mm/min  |  |
| 2.   | 20 mm/min  |  |
| 3.   | 2.8 mm/min |  |
| 4.   | 2.8 mm/min |  |

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