

# POLYLAC® PA-757

Acrylonitrile Butadiene Styrene

CHI MEI CORPORATION

## Message:

POLYLAC® PA-757 is an Acrylonitrile Butadiene Styrene (ABS) product. It can be processed by injection molding and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America.

Characteristics include:

Flame Rated

RoHS Compliant

| General Information                         |                   |                        |              |
|---------------------------------------------|-------------------|------------------------|--------------|
| UL YellowCard                               | E56070-565071     |                        |              |
| RoHS Compliance                             | RoHS Compliant    |                        |              |
| Processing Method                           | Injection Molding |                        |              |
| Physical                                    | Nominal Value     | Unit                   | Test Method  |
| Specific Gravity                            |                   |                        |              |
| --                                          | 1.05              | g/cm <sup>3</sup>      | ASTM D792    |
| 23°C                                        | 1.05              | g/cm <sup>3</sup>      | ISO 1183     |
| Melt Mass-Flow Rate (MFR)                   |                   |                        | ASTM D1238   |
| 200°C/5.0 kg                                | 1.6               | g/10 min               |              |
| 220°C/10.0 kg                               | 22                | g/10 min               |              |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 kg) |                   |                        | ISO 1133     |
|                                             | 22.0              | cm <sup>3</sup> /10min |              |
| Hardness                                    | Nominal Value     | Unit                   | Test Method  |
| Rockwell Hardness (R-Scale)                 | 116               |                        | ASTM D785    |
| Ball Indentation Hardness (H 358/30)        | 110               | MPa                    | ISO 2039-1   |
| Mechanical                                  | Nominal Value     | Unit                   | Test Method  |
| Tensile Stress                              |                   |                        |              |
| Yield                                       | 54.0              | MPa                    | ISO 527-2/50 |
| Break                                       | 37.0              | MPa                    | ISO 527-2/50 |
| 3.00 mm <sup>1</sup>                        | 45.1              | MPa                    | ASTM D638    |
| Tensile Elongation                          |                   |                        |              |
| Break, 3.00 mm <sup>2</sup>                 | 25                | %                      | ASTM D638    |
| Break                                       | 20                | %                      | ISO 527-2/50 |
| Flexural Modulus                            |                   |                        |              |
| 6.00 mm <sup>3</sup>                        | 2650              | MPa                    | ASTM D790    |
| -- <sup>4</sup>                             | 2200              | MPa                    | ISO 178      |
| Flexural Strength                           |                   |                        |              |
| 6.00 mm <sup>5</sup>                        | 77.5              | MPa                    | ASTM D790    |
| -- <sup>6</sup>                             | 76.0              | MPa                    | ISO 178      |
| Impact                                      | Nominal Value     | Unit                   | Test Method  |
| Charpy Notched Impact Strength              | 20                | kJ/m <sup>2</sup>      | ISO 179      |

|                                   |                 |                   |                         |
|-----------------------------------|-----------------|-------------------|-------------------------|
| Charpy Unnotched Impact Strength  | No Break        |                   | ISO 179                 |
| Notched Izod Impact               |                 |                   |                         |
| 23°C, 3.00 mm                     | 210             | J/m               | ASTM D256               |
| 23°C, 6.00 mm                     | 180             | J/m               | ASTM D256               |
| --                                | 18              | kJ/m <sup>2</sup> | ISO 180/1A              |
| Unnotched Izod Impact Strength    | 60              | kJ/m <sup>2</sup> | ISO 180/1U              |
| Thermal                           | Nominal Value   | Unit              | Test Method             |
| Deflection Temperature Under Load |                 |                   |                         |
| 1.8 MPa, Unannealed               | 85.0            | °C                | ASTM D648               |
| 1.8 MPa, Unannealed               | 88.0            | °C                | ISO 75-2/A              |
| 1.8 MPa, Annealed                 | 95.0            | °C                | ASTM D648               |
| 1.8 MPa, Annealed                 | 98.0            | °C                | ISO 75-2/A              |
| Vicat Softening Temperature       |                 |                   |                         |
| --                                | 105             | °C                | ASTM D1525 <sup>7</sup> |
| --                                | 104             | °C                | ISO 306/A50             |
| --                                | 100             | °C                | ISO 306/B50             |
| Flammability                      | Nominal Value   |                   | Test Method             |
| Flame Rating (1.60 mm)            | HB              |                   | UL 94                   |
| Injection                         | Nominal Value   | Unit              |                         |
| Drying Temperature                | 80.0 to 85.0    | °C                |                         |
| Drying Time                       | 2.0 to 4.0      | hr                |                         |
| Rear Temperature                  | 180 to 220      | °C                |                         |
| Middle Temperature                | 190 to 230      | °C                |                         |
| Front Temperature                 | 190 to 230      | °C                |                         |
| Mold Temperature                  | 30.0 to 70.0    | °C                |                         |
| NOTE                              |                 |                   |                         |
| 1.                                | 6.0 mm/min      |                   |                         |
| 2.                                | 6.0 mm/min      |                   |                         |
| 3.                                | 2.8 mm/min      |                   |                         |
| 4.                                | 2.0 mm/min      |                   |                         |
| 5.                                | 2.8 mm/min      |                   |                         |
| 6.                                | 2.0 mm/min      |                   |                         |
| 7.                                | Rate A (50°C/h) |                   |                         |

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