



## POLYLAC® PA-757

CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Sunday, November 3, 2019

### General Information

#### General

|                     |                                          |                             |                 |
|---------------------|------------------------------------------|-----------------------------|-----------------|
| Material Status     | • Commercial: Active                     |                             |                 |
| Availability        | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features            | • High Gloss                             | • Medium Impact Resistance  |                 |
| RoHS Compliance     | • RoHS Compliant                         |                             |                 |
| Resin ID (ISO 1043) | • >ABS<                                  |                             |                 |

### ASTM & ISO Properties<sup>1</sup>

| Physical                                    | Nominal Value | Unit                   | Test Method |
|---------------------------------------------|---------------|------------------------|-------------|
| Density / Specific Gravity <sup>2</sup>     | 1.05          |                        | ASTM D792   |
| Density (73°F)                              | 1.05          | g/cm <sup>3</sup>      | ISO 1183    |
| Melt Mass-Flow Rate (200°C/5.0 kg)          | 1.6           | g/10 min               | ASTM D1238  |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 kg) | 18            | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                           | 0.40 to 0.70  | %                      | ISO 294-4   |

| Mechanical                              | Nominal Value | Unit | Test Method  |
|-----------------------------------------|---------------|------|--------------|
| Tensile Strength <sup>3</sup> (Yield)   | 6660          | psi  | ASTM D638    |
| Tensile Stress (Yield)                  | 6820          | psi  | ISO 527-2/50 |
| Tensile Stress (Break)                  | 4930          | psi  | ISO 527-2/50 |
| Tensile Elongation <sup>3</sup> (Break) | 25            | %    | ASTM D638    |
| Tensile Strain (Break)                  | 30            | %    | ISO 527-2/50 |
| Flexural Modulus <sup>4</sup>           | 380000        | psi  | ASTM D790    |
| Flexural Modulus <sup>5</sup>           | 319000        | psi  | ISO 178      |
| Flexural Strength <sup>4</sup>          | 11700         | psi  | ASTM D790    |
| Flexural Stress <sup>5</sup>            | 11000         | psi  | ISO 178      |

| Impact                         | Nominal Value | Unit                  | Test Method |
|--------------------------------|---------------|-----------------------|-------------|
| Charpy Notched Impact Strength |               |                       | ISO 179     |
| -22°F                          | 4.8           | ft·lb/in <sup>2</sup> |             |
| 73°F                           | 10            | ft·lb/in <sup>2</sup> |             |
| Notched Izod Impact            |               |                       | ASTM D256   |
| 73°F, 0.126 in                 | 3.9           | ft·lb/in              |             |
| 73°F, 0.252 in                 | 3.7           | ft·lb/in              |             |
| Notched Izod Impact Strength   |               |                       | ISO 180/1A  |
| -22°F                          | 4.3           | ft·lb/in <sup>2</sup> |             |
| 73°F                           | 9.0           | ft·lb/in <sup>2</sup> |             |

| Hardness                    | Nominal Value | Unit | Test Method |
|-----------------------------|---------------|------|-------------|
| Rockwell Hardness (R-Scale) | 116           |      | ASTM D785   |

| Thermal                                               | Nominal Value | Unit | Test Method |
|-------------------------------------------------------|---------------|------|-------------|
| Deflection Temperature Under Load                     |               |      | ASTM D648   |
| 264 psi, Unannealed                                   | 185           | °F   |             |
| Heat Deflection Temperature (264 psi, Unannealed)     | 181           | °F   | ISO 75-2/A  |
| Deflection Temperature Under Load (264 psi, Annealed) | 203           | °F   | ASTM D648   |

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| Thermal                                         | Nominal Value | Unit     | Test Method             |
|-------------------------------------------------|---------------|----------|-------------------------|
| Heat Deflection Temperature (264 psi, Annealed) | 208           | °F       | ISO 75-2/A              |
| Vicat Softening Temperature                     | 221           | °F       | ASTM D1525 <sup>6</sup> |
| Vicat Softening Temperature                     |               |          |                         |
| --                                              | 219           | °F       | ISO 306/A50             |
| --                                              | 212           | °F       | ISO 306/B50             |
| CLTE - Flow                                     | 4.8E-5        | in/in/°F | ISO 11359-2             |
| Flammability                                    | Nominal Value | Unit     | Test Method             |
| Flame Rating (0.06 in)                          | HB            |          | UL 94                   |

### Processing Information

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature | 176 to 185    | °F   |
| Drying Time        | 2.0 to 4.0    | hr   |
| Rear Temperature   | 356 to 428    | °F   |
| Middle Temperature | 374 to 446    | °F   |
| Front Temperature  | 374 to 446    | °F   |
| Mold Temperature   | 86 to 158     | °F   |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 23°C

<sup>3</sup> 0.24 in/min

<sup>4</sup> 0.11 in/min

<sup>5</sup> 0.079 in/min

<sup>6</sup> Rate A (50°C/h), Loading 1 (10 N)