

**POLYLAC PA-777E**

ABS

CHIMEI Corporation

| <b>Processing/Physical Characteristics</b>         | <b>Value</b> | <b>Unit</b>            | <b>Test Standard</b> |
|--|--------------|------------------------|----------------------|
| <b>ISO Data</b>                                    |              |                        |                      |
| Melt volume-flow rate, MVR                         | 4.5          | cm <sup>3</sup> /10min | ISO 1133             |
| Temperature  | 220          | °C                     | -                    |
| Load   | 10           | kg                     | -                    |
| Molding shrinkage, parallel                        | 0.5          | %                      | ISO 294-4, 2577      |
| <b>ASTM Data</b>                                   |              |                        |                      |
| Melt Flow Index, MFI                               | 4            | g/10min                | ASTM D 1238          |
| Temperature  | 220          | °C                     | -                    |
| Load   | 10           | kg                     | -                    |
| <b>Mechanical properties</b>                       |              |                        |                      |
| <b>ISO Data</b>                                    |              |                        |                      |
| Yield stress                                       | 45           | MPa                    | ISO 527              |
| Stress at break                                    | 32           | MPa                    | ISO 527              |
| Flexural modulus, 23°C                             | 2300         | MPa                    | ISO 178              |
| Flexural strength                                  | 74           | MPa                    | ISO 178              |
| Charpy notched impact strength, +23°C              | 13           | kJ/m <sup>2</sup>      | ISO 179/1eA          |
| Charpy notched impact strength, -30°C              | 6            | kJ/m <sup>2</sup>      | ISO 179/1eA          |
| Izod notched impact strength, +23°C                | 12           | kJ/m <sup>2</sup>      | ISO 180/1A           |
| Izod notched impact strength                       | 6            | kJ/m <sup>2</sup>      | ISO 180/1A           |
| Temperature  | -30          | °C                     | -                    |
| <b>ASTM Data</b>                                   |              |                        |                      |
| Tensile Strength at Yield                          | 44           | MPa                    | ASTM D 638           |
| Flexural Modulus                                   | 2206         | MPa                    | ASTM D 790           |
| Flexural Strength                                  | 68.3         | MPa                    | ASTM D 790           |
| Rockwell Hardness                                  | R 115        | -                      | ASTM D 785           |
| Izod Impact notched, 1/8 in                        | 117          | J/m                    | ASTM D 256           |
| Izod Impact notched, 1/4 in                        | 107          | J/m                    | ASTM D 256           |
| <b>Thermal properties</b>                          |              |                        |                      |
| <b>ISO Data</b>                                    |              |                        |                      |
| Temp. of deflection under load, 1.80 MPa           | 101          | °C                     | ISO 75-1/-2          |
| Vicat softening temperature, A                     | 129          | °C                     | ISO 306              |
| Vicat softening temperature, B                     | 121          | °C                     | ISO 306              |
| Coeff. of linear therm. expansion, parallel        | 85           | E-6/K                  | ISO 11359-1/-2       |
| Burning behav. at thickness h                      | HB           | class                  | IEC 60695-11-10      |
| Thickness tested                                   | 1.5          | mm                     | -                    |
| Yellow Card available                              | yes          | -                      | -                    |
| <b>ASTM Data</b>                                   |              |                        |                      |
| UL 94 Flame rating                                 | HB           | -                      | UL 94                |
| Thickness tested                                   | 1.5          | mm                     | -                    |
| DTUL @ 264 psi                                     | 109          | °C                     | ASTM D 648           |
| Vicat Temperature                                  | 129          | °C                     | ASTM D 1525          |
| <b>Electrical properties</b>                       |              |                        |                      |
| <b>ASTM Data</b>                                   |              |                        |                      |
| Arc Resistance                                     | 90           | s                      | ASTM D 495           |
| <b>Other properties</b>                            |              |                        |                      |
| Density  | 1070         | kg/m <sup>3</sup>      | ISO 1183             |
| Density  | 1070         | kg/m <sup>3</sup>      | ASTM D 792           |
| <b>Processing Recommendation Injection Molding</b> |              |                        |                      |
| Pre-drying - Temperature                           | 100 - 110    | °C                     | -                    |
| Pre-drying - Time                                  | 3            | h                      | -                    |
| Mold temperature                                   | 40 - 80      | °C                     | -                    |
| Feed temperature                                   | 220 - 250    | °C                     | -                    |

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|                    |                  |     |   |
|--------------------|------------------|-----|---|
| Zone 1             | <b>240 - 270</b> | °C  | - |
| Nozzle temperature | <b>240 - 270</b> | °C  | - |
| Injection pressure | <b>5 - 7</b>     | MPa | - |
| Back pressure      | <b>0.5 - 1.5</b> | MPa | - |
| Holding pressure   | <b>4 - 6</b>     | MPa | - |

**Characteristics****Processing**

Injection Molding

**Applications**

Automotive

**Delivery form**

Pellets

**Regional Availability**

Asia Pacific

**Special Characteristics**

Heat stabilized or stable to heat