

## EMERGE™ PC/ABS 7530 Advanced Resin

### Overview

EMERGE™ PC/ABS 7530 advanced resin is a high flow, ignition-resistant PC/ABS blend that contains no chlorinated or brominated flame retardant additives. It has good property balance of flow ability, impact and heat stability. It is suitable for the injection molding for large, thin-wall and Intricate parts. It can be used in a wide variety of applications in the Information Technology Equipment and Consumer Electronics Industries

Applications:

- Notebook & Desktop Computer Enclosures
- TV & monitor enclosures
- Power Adaptors and Chargers

| Physical                                     | Nominal Value (English) | Nominal Value (SI)     | Test Method             |
|--|-------------------------|------------------------|-------------------------|
| Density                                      | 1.17 g/cm <sup>3</sup>  | 1.17 g/cm <sup>3</sup> | ASTM D792               |
| Melt Mass-Flow Rate (MFR)                    |                         |                        | ASTM D1238              |
| 230°C/3.8 kg                                 | 16 g/10 min             | 16 g/10 min            |                         |
| 260°C/5.0 kg                                 | 70 g/10 min             | 70 g/10 min            |                         |
| Molding Shrinkage - Flow                     | 4.0E-3 to 6.0E-3 in/in  | 0.40 to 0.60 %         | ASTM D955               |
| Mechanical                                   | Nominal Value (English) | Nominal Value (SI)     | Test Method             |
| Tensile Strength <sup>1</sup>                |                         |                        | ASTM D638               |
| Yield  | 9000 psi                | 62.1 MPa               |                         |
| Break  | 6600 psi                | 45.5 MPa               |                         |
| Tensile Elongation <sup>1</sup>              |                         |                        | ASTM D638               |
| Yield  | 4.0 %                   | 4.0 %                  |                         |
| Break  | 60 %                    | 60 %                   |                         |
| Flexural Modulus                             | 410000 psi              | 2830 MPa               | ASTM D790               |
| Flexural Strength                            | 14200 psi               | 97.9 MPa               | ASTM D790               |
| Impact                                       | Nominal Value (English) | Nominal Value (SI)     | Test Method             |
| Notched Izod Impact (73°F (23°C))            | 12 ft-lb/in             | 640 J/m                | ASTM D256               |
| Hardness                                     | Nominal Value (English) | Nominal Value (SI)     | Test Method             |
| Rockwell Hardness (R-Scale)                  | 120                     | 120                    | ASTM D785               |
| Thermal                                      | Nominal Value (English) | Nominal Value (SI)     | Test Method             |
| Deflection Temperature Under Load            |                         |                        | ASTM D648               |
| 66 psi (0.45 MPa), Unannealed                | 203 °F                  | 95.0 °C                |                         |
| 264 psi (1.8 MPa), Unannealed                | 181 °F                  | 82.8 °C                |                         |
| Vicat Softening Temperature                  | 227 °F                  | 108 °C                 | ASTM D1525 <sup>2</sup> |
| Flammability                                 | Nominal Value (English) | Nominal Value (SI)     | Test Method             |
| Flame Rating <sup>3</sup> (0.06 in (1.5 mm)) | V-0                     | V-0                    | UL 94                   |
| Glow Wire Flammability Index <sup>3</sup>    |                         |                        | IEC 60695-2-12          |
| 0.08 in (2.0 mm)                             | 1760 °F                 | 960 °C                 |                         |
| Glow Wire Ignition Temperature <sup>3</sup>  |                         |                        | IEC 60695-2-13          |
| 0.08 in (2.0 mm)                             | 1700 °F                 | 925 °C                 |                         |
| Oxygen Index <sup>3</sup>                    | 29 %                    | 29 %                   | ASTM D2863              |

| <b>Injection</b>       | <b>Nominal Value (English)</b> | <b>Nominal Value (SI)</b> |
|------------------------|--------------------------------|---------------------------|
| Drying Temperature     | 176 to 194 °F                  | 80 to 90 °C               |
| Drying Time            | 3.0 to 4.0 hr                  | 3.0 to 4.0 hr             |
| Processing (Melt) Temp | 446 to 500 °F                  | 230 to 260 °C             |
| Mold Temperature       | 140 to 194 °F                  | 60 to 90 °C               |