

## POLYETHERIMIDE (PEI) MOLDING COMPOUNDS TYPICAL PROPERTIES (1)

| Properties                           | Test Method    | Units       | PEI 1000<br>(Injection/Ex<br>trusion) | PEI 1010<br>(Injection<br>Unfilled) | PEI 10% Glass<br>Reinforced | PEI 20% Glass<br>Reinforced | PEI 30% Glass<br>Reinforced<br>1000-1003 | PEI 40% Glass<br>Reinforced<br>1000-1004 |
|--------------------------------------|----------------|-------------|---------------------------------------|-------------------------------------|-----------------------------|-----------------------------|--|--|
| <b>Physical</b>                      |                |             |                                       |                                     |                             |                             |  |  |
| Specific Gravity                     | ASTM-D792      | ----        | 1.27                                  | 1.27                                | 1.34                        | 1.41                        | 1.51                                     | 1.59                                     |
| Water Absorption (24 hr)             | ASTM-D570      | %           | 0.25                                  | 0.25                                | 0.22                        | 0.22                        | 0.5                                      | 0.16                                     |
| Melt Mass Flow Rate<br>(337°C 6.6kg) | ASTM-<br>D1238 |             | 9                                     | 18                                  |                             |                             |  |  |
| <b>Mechanical</b>                    |                |             |                                       |                                     |                             |                             |  |  |
| Tensile Strength (73°F)              | ASTM-D638      | psi         | 16,000                                | 16,000                              | 17,500                      | 21,500                      | 24,400                                   | 27,000                                   |
| Tensile Elongation                   | ASTM-D638      | %           | 7                                     | 7                                   |                             |                             | 4  | 3  |
| Flexural Strength                    | ASTM-D790      | psi         | 24,000                                | 24,000                              | 29,500                      | 31,500                      | 37,000                                   | 43,000                                   |
| Flexural Modulus                     | ASTM-D790      | psi         | 510,000                               | 510,000                             | 750,000                     | 950,000                     | 1,200,000                                | 1,550,000                                |
| Izod Impact Strength                 |                | ft. lb./in. |                                       |                                     |                             |                             |  |  |
| Notched (1/8")                       |                |             | 1.0                                   | 0.6                                 | 1.0                         | 1.5                         | 1.7                                      | 1.9                                      |
| Rockwell Hardness                    | ASTM-D785      | R Scale     | 109                                   | 109                                 |                             |                             | 125                                      |  |



**The Resin Enterprise, Inc.**

607 W. Swedesford Road Malvern, PA 19355 USA  
484-328-3083 | sales@resinenterprise.com

**POLYETHERIMIDE (PEI) MOLDING COMPOUNDS TYPICAL PROPERTIES (1 CONT'D.)**

| Properties                              | Test Method | Units                          | PEI 1000 (Injection/Extrusion) | PEI 1010 (Injection Unfilled) | PEI 10% Glass Reinforced | PEI 20% Glass Reinforced | PEI 30% Glass Reinforced 1000-1003 | PEI 40% Glass Reinforced 1000-1004 |
|---|-------------|--------------------------------|--------------------------------|-------------------------------|--------------------------|--------------------------|------------------------------------|------------------------------------|
| <b>Thermal</b>                          |             |                                |                                |                               |                          |                          |                                    |                                    |
| Heat Deflection Temp.                   | ASTM-D648   | °F                             |                                |                               |                          |                          |                                    |                                    |
| 66 psi                                  |             |                                | 410                            | 405                           |                          |                          | 419                                | 420                                |
| 264 psi                                 |             |                                | 392                            | 390                           | 410                      | 415                      | 410                                |                                    |
| Coefficient of Linear Thermal Expansion | ASTM-D696   | in./in./ °F X 10 <sup>-5</sup> | 3.1                            | 3.1                           |                          |                          | 1.1                                | 1.0                                |
| <b>Miscellaneous</b>                    |             |                                |                                |                               |                          |                          |                                    |                                    |
| Flammability                            | UL SUBJ. 94 | ----                           | V-0                            | V-0                           | V-0                      | V-0                      |                                    |                                    |
| Mold Shrinkage (1/8")                   | ASTM-D955   | in./in.                        | 0.006                          | 0.006                         | 0.005                    | 0.004                    | 0.002                              | 0.002                              |

Suggested processing parameters are available upon request. Seller is not responsible or liable for any loss or damage resulting from product use, and no warranty is stated or implied.

