

# Technical Data Sheet

## GEHR PVC Type I®



### Physical Properties

| General  | Test Method | Unit                        | Value                  |
|--|-------------|-----------------------------|------------------------|
| Cell Classification  | ASTM D1784  | -                           | 12454                  |
| Material Call-Out Designation  | ASTM D6263  | -                           | S-PVC0111              |
| Specific gravity   | ASTM D792   | g/cm <sup>3</sup>           | 1.38                   |
| Water Absorption (saturation)  | ASTM D570   | %                           | 0.5                    |
| Humidity Absorption (saturation)   | ASTM D570   | %                           | 0.2                    |
| <b>Mechanical</b>  |             |                             |                        |
| Tensile strength   | ASTM D638   | psi                         | 7,200                  |
| Tensile Modulus  | ASTM D638   | psi                         | 440,000                |
| Izod Impact, Notched @73°F   | ASTM D256   | ft-lb/in                    | 2.2                    |
| Hardness, Shore-D  | ASTM D2240  | -                           | 74                     |
| Flexural strength  | ASTM D790   | psi                         | 11,000                 |
| Flexural Modulus   | ASTM D790   | psi                         | 440,000                |
| <b>Thermal Properties</b>  |             |                             |                        |
| Heat Deflection Temperature; HDT/A @264 psi  | ASTM D648   | °F                          | 158                    |
| Coefficient of linear thermal expansion  | ASTM D696   | in/in/°F x 10 <sup>-5</sup> | 3.3                    |
| Melting Temperature  | ASTM D3418  | °F                          | 360-385                |
| Maximum permissible service temp.  | UL 746B     | °F                          | 140                    |
| Lower permissible service temp.  | UL 746B     | °F                          | 5                      |
| <b>Electrical</b>  |             |                             |                        |
| Dielectric Strength  | ASTM D149   | Volts/mil                   | 1400-1413              |
| Dielectric Constant  | ASTM D150   | 60Hz@30°F                   | 3.7                    |
| Volume Resistivity   | ASTM D257   | Ohm/cm@73°F                 | 1.2 x 10 <sup>12</sup> |
| <b>Fire Performance</b>  |             |                             |                        |
| Burning Rate   | -           | In/min                      | Self-Extinguishing     |
| Flammability   | UL 94       | -                           | V-0*                   |
| Average Time of Burning  | ASTM D635   | seconds                     | <10                    |
| Average Extent of Burning  | ASTM D635   | mm                          | <25                    |
| Limiting Oxygen Index (LOI)  | ASTM D2863  | %                           | 47                     |
| <b>Regulatory Compliance</b>   |             |                             |                        |
| Drinking Water System components – Health Effects  | NSF         |                             | Std 61                 |
| Physical Properties (i.e. cell class)  | NSF         |                             | Std 14                 |
| <b>Other</b>   |             |                             |                        |
| PVC Cell Classification 12454 = S-PVC0111 = Type 1, Grade 1 PVC = PVC 1120 = Rigid (unplasticized) PVC |             |                             |                        |

+\* = tested with formulation for rods up to 8" diameter, grey (profiles are tested but not listed)

The physical properties data contained herein are typical values and reflect the current state of our knowledge. The values are obtained on test specimens of the material under specific test conditions and represent average values of a large number of tests. This data is to be used as a guideline only and should not be used for specification purposes for finished parts machined from GEHR stock shapes. Physical properties of finished parts can be influenced by material, processing, machining techniques, environmental factors, and part geometry. It is the end user's responsibility to determine the suitability for the intended application prior to use. GEHR plastics, Inc. (including its affiliates) does not warrant, promise, or guarantee the suitability of this product for use in specific applications and disclaims any implied warranties, including but not limited to any warranties of merchantability or fitness for a particular purpose.