



# Geon™ Vinyl Packaging 2188GC

## Rigid Polyvinyl Chloride

### Key Characteristics

| General               |  |                             |                          |
|-----------------------|--|-----------------------------|--------------------------|
| Material Status       | • Commercial: Active                     |                             |                          |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America          |
| Features              | • Food Contact Acceptable                | • High Gloss                | • High Impact Resistance |
| Uses                  | • Bottles                                | • Packaging                 |                          |
| Agency Ratings        | • FDA Food Contact, Unspecified Rating   |                             |                          |
| Appearance            | • Clear/Transparent                      |                             |                          |
| Forms                 | • Pellets                                |                             |                          |
| Processing Method     | • Blow Molding                           |                             |                          |

### Technical Properties <sup>1</sup>

| Physical  | Typical Value (English) | Typical Value (SI)      | Test Method     |
|---|-------------------------|-------------------------|-----------------|
| Specific Gravity  | 1.32                    | 1.32                    | ASTM D792       |
| Density   | 0.801 g/cm <sup>3</sup> | 0.801 g/cm <sup>3</sup> | ASTM D1505      |
| Mechanical  | Typical Value (English) | Typical Value (SI)      | Test Method     |
| Tensile Modulus <sup>2</sup>  | 346000 psi              | 2390 MPa                | ASTM D638       |
| Tensile Strength <sup>2</sup> (Yield)   | 6300 psi                | 43.4 MPa                | ASTM D638       |
| Flexural Modulus  | 374000 psi              | 2580 MPa                | ASTM D790       |
| Flexural Strength   | 11200 psi               | 77.2 MPa                | ASTM D790       |
| Impact  | Typical Value (English) | Typical Value (SI)      | Test Method     |
| Notched Izod Impact<br>73°F (23°C), 0.125 in (3.18 mm),<br>Injection Molded               | 21 ft·lb/in             | 1100 J/m                | ASTM D256A      |
| Hardness  | Typical Value (English) | Typical Value (SI)      | Test Method     |
| Rockwell Hardness (R-Scale)   | 105                     | 105                     | ASTM D785       |
| Durometer Hardness (Shore D)  | 79                      | 79                      | ASTM D2240      |
| Thermal   | Typical Value (English) | Typical Value (SI)      | Test Method     |
| Deflection Temperature Under Load<br>264 psi (1.8 MPa), Unannealed, 0.125 in<br>(3.18 mm) | 139 °F                  | 59.4 °C                 | ASTM D648       |
| Optical   | Typical Value (English) | Typical Value (SI)      | Test Method     |
| Transmittance   |                         |                         | Internal Method |
| 33.5 mil (851 µm), 400 nm   | 81.0 %                  | 81.0 %                  |                 |
| 33.5 mil (851 µm), 700 nm   | 86.5 %                  | 86.5 %                  |                 |
| Additional Information  | Typical Value (English) | Typical Value (SI)      |                 |
| Blow Molding Temperature  | 395 to 415 °F           | 202 to 213 °C           |                 |

### Notes

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 0.20 in/min (5.1 mm/min)

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## CONTACT INFORMATION

### Americas

United States - Avon Lake  
+1 440 930 1000

United States - McHenry  
+1 815 385 8500

### Asia

China - Guangzhou  
+86 20 8732 7260

China - Shenzhen  
+86 755 2969 2888

China - Suzhou  
+86 512 6823 24 38

China - Suzhou  
+86 512 6265 2600

Hong Kong -  
+852 2690 5332

Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

### Europe

Germany - Gaggenau  
+49 7225 6802 0

Spain - Barbastro (Huesca)  
+34 974 310 314



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[www.polyone.com](http://www.polyone.com)

### PolyOne Americas

33587 Walker Road  
Avon Lake, Ohio 44012  
United States  
+1 440 930 1000  
+1 866 POLYONE

### PolyOne Asia

No. 88 Guoshoujing Road  
Z.J Hi-tech Park, Pudong  
Shanghai, 201203, China  
+86 21 5080 1188

### PolyOne Europe

6 Giällewee  
+352 269 050 35

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