

# Geon™ Vinyl Dry Blend EP680

Rigid Polyvinyl Chloride

PolyOne Corporation

## Message:

Geon™ Vinyl Dry Blend EP680 is a rigid PVC product. It can be processed by extrusion and is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

Features include:

flame retardant/rated flame

Impact resistance

| General Information                                      |                          |                   |             |
|----------------------------------------------------------|--------------------------|-------------------|-------------|
| UL YellowCard                                            | E41877-102814829         |                   |             |
| Features                                                 | Medium impact resistance |                   |             |
| Forms                                                    | Powder                   |                   |             |
| Processing Method                                        | Extrusion                |                   |             |
| Physical                                                 | Nominal Value            | Unit              | Test Method |
| Specific Gravity                                         | 1.47                     | g/cm <sup>3</sup> | ASTM D792   |
| PVC Cell Classification                                  | 1-23334-32-0000          |                   | ASTM D4216  |
| Hardness                                                 | Nominal Value            | Unit              | Test Method |
| Durometer Hardness                                       |                          |                   | ASTM D2240  |
| Shao D, 6.15mm                                           | 80                       |                   | ASTM D2240  |
| Shao D, 15 seconds, 6.15mm                               | 77                       |                   | ASTM D2240  |
| Mechanical                                               | Nominal Value            | Unit              | Test Method |
| Tensile Modulus <sup>1</sup> (25°C, 3.05 mm)             | 3170                     | MPa               | ASTM D638   |
| Tensile Strength <sup>2</sup> (Yield, 25°C, 3.05mm)      | 41.9                     | MPa               | ASTM D638   |
| Flexural Modulus <sup>3</sup> (25°C, 2.97 mm)            | 3650                     | MPa               | ASTM D790   |
| Flexural Strength <sup>4</sup> (25°C, 2.97 mm)           | 85.1                     | MPa               | ASTM D790   |
| Impact                                                   | Nominal Value            | Unit              | Test Method |
| Notched Izod Impact - Across Flow (23°C, 3.02mm, molded) | 100                      | J/m               | ASTM D256A  |
| Drop Impact Resistance                                   |                          |                   | ASTM D4226  |
| 23°C <sup>5</sup>                                        | 89.8                     | J/cm              | ASTM D4226  |
| 23°C <sup>6</sup>                                        | > 117                    | J/cm              | ASTM D4226  |
| Thermal                                                  | Nominal Value            | Unit              | Test Method |
| Deflection Temperature Under Load                        |                          |                   | ASTM D648A  |
| 0.45 MPa, unannealed, 12.8mm, compression molding        | 74.9                     | °C                | ASTM D648A  |
| 0.45 MPa, annealing, 12.8mm <sup>7</sup>                 | 74.4                     | °C                | ASTM D648A  |
| 1.8 MPa, unannealed, 12.7mm, molded                      | 68.7                     | °C                | ASTM D648A  |
| 1.8 MPa, annealed, 12.7mm, molded <sup>8</sup>           | 73.2                     | °C                | ASTM D648A  |
| CLTE - Flow (-30 to 30°C, mm)                            | 5.8E-5                   | cm/cm/°C          | ASTM D696   |
| Flammability                                             | Nominal Value            |                   | Test Method |

Flame Rating

5VA

UL 94

Extrusion

Nominal Value

Unit

Melt Temperature

191 - 204

°C

## NOTE

- |    |                       |
|----|-----------------------|
| 1. | Type 1, 5.1 mm/min    |
| 2. | Type 1, 5.1 mm/min    |
| 3. | 13 mm/min             |
| 4. | 13 mm/min             |
| 5. | Program A, C.125 Dart |
| 6. | Program B, C.125 Dart |
| 7. | Annealed at 50 deg.C  |
| 8. | Annealed at 50 deg.C  |

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