



# Trilliant™ HC HC5220-0040 RS Natural Polypropylene

## Key Characteristics

### Product Description

The Trilliant® specialty compounds offer a complete system of specialty engineered materials, certified processes, services and technical support that enable healthcare OEM's to get to market ahead of the competition. When specified, Trilliant® compounds may incorporate agency rated materials that meet USP Class VI, FDA or ISO 10993 testing requirements.

### General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Biocompatible • Chemical Resistant	• Good Colorability • Specialty Grade	
Uses	• Hospital Goods	• Medical/Healthcare Applications	
Agency Ratings	• USP Class VI		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.22	1.22	ASTM D792
Melt Mass-Flow Rate (MFR)	6.0 g/10 min	6.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.0E-3 in/in	0.10 %	ASTM D955
Molding Shrinkage - Across Flow	0.014 in/in	1.4 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Yield)	8400 psi	57.9 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	1.0 %	1.0 %	ASTM D638
Flexural Modulus	985000 psi	6790 MPa	ASTM D790
Flexural Strength	12900 psi	88.9 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	0.80 ft-lb/in	43 J/m	ASTM D256A
Unnotched Izod Impact	4.0 ft-lb/in	210 J/m	ASTM D256
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	> 311 °F	> 155 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed	280 °F	138 °C	ASTM D648
Melting Temperature	400 to 420 °F	204 to 216 °C	

## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Mold Temperature	80.0 to 100 °F	26.7 to 37.8 °C

Copyright ©, 2016 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

**Notes**<sup>1</sup> Typical values are not to be construed as specifications.<sup>2</sup> Type I, 2.0 in/min (51 mm/min)**CONTACT INFORMATION****Americas**United States - Avon Lake  
+1 440 930 1000United States - McHenry  
+1 815 385 8500**Asia**China - Guangzhou  
+86 20 8732 7260China - Shenzhen  
+86 755 2969 2888China - Suzhou  
+86 512 6823 24 38China - Suzhou  
+86 512 6265 2600Hong Kong -  
+852 2690 5332Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849**Europe**Germany - Gaggenau  
+49 7225 6802 0Spain - Barbastro (Huesca)  
+34 974 310 314*Beyond Polymers.**Better Business Solutions. SM*

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

Copyright ©, 2016 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.