



Geon™ Bold L5801

Polyvinyl Chloride Alloy

Key Characteristics

Product Description

PVC alloy for dark color capstock requiring premium weathering in both horizontal and vertical applications. May provide a wider processing window on traditional calibration tooling. Comes in low gloss. Best option for lower heat build-up in "jet black".

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Processability	• Low Gloss	• Weather Resistant
Uses	• Capstock • Construction Applications	• Decorative Railing • Windows & Doors	
Forms	• Cube		
Processing Method	• Extrusion		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.28	1.28	ASTM D792
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	323000 psi	2230 MPa	ASTM D638
Tensile Strength ² (Yield)	4580 psi	31.6 MPa	ASTM D638
Tensile Elongation ² (Break)	55 %	55 %	ASTM D638
Flexural Modulus ³	340000 psi	2340 MPa	ASTM D790
Flexural Strength ³ (Yield)	11500 psi	79.3 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256
0.125 in (3.18 mm), Compression Molded	0.50 ft·lb/in	27 J/m	
Drop Impact Resistance			ASTM D4226
73°F (23°C) ⁴	1.33 in·lb/mil	59.2 J/cm	
73°F (23°C) ⁵	> 4.00 in·lb/mil	> 178 J/cm	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D, 15 sec)	79	79	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load ⁶			ASTM D648
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	141 °F	60.7 °C	
Deflection Temperature Under Load ⁶			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	122 °F	49.9 °C	
CLTE - Flow	4.0E-5 in/in/°F	7.2E-5 cm/cm/°C	ASTM D696

Additional Information

Physical properties based on Geon L4067TME2 LHB Black 2880.

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.

Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	300 to 350 °F	149 to 177 °C

Extrusion Notes

Melt flow, extrusion conditions and downstream calibration likely to be different than standard rigid PVC. Wet vacuum calibration is recommended but may also work on dry calibration.

Notes

- ¹ Typical values are not to be construed as specifications.
- ² Type I, 0.20 in/min (5.1 mm/min)
- ³ 2.0 in/min (51 mm/min)
- ⁴ Procedure A, .125"
- ⁵ Procedure B, .125"
- ⁶ Conditioned at 50 deg.C

CONTACT INFORMATION

Americas	Asia	Europe
United States - Avon Lake +1 440 930 1000	China - Guangzhou +86 20 8732 7260	Germany - Gaggenau +49 7225 6802 0
United States - McHenry +1 815 385 8500	China - Shenzhen +86 755 2969 2888	Spain - Barbaastro (Huesca) +34 974 310 314
	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	



Beyond Polymers.
Better Business Solutions. SM
www.polyone.com

PolyOne Americas	PolyOne Asia	PolyOne Europe
33587 Walker Road Avon Lake, Ohio 44012 United States +1 440 930 1000 +1 866 POLYONE	No. 88 Guoshoujing Road Z.J Hi-tech Park, Pudong Shanghai, 201203, China +86 21 5080 1188	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.