Zytel® LC7602 BK010A

LONG CHAIN POLYAMIDE RESIN

Zytel® LCPA long chain polyamide resins provide an innovative and growing portfolio of flexible polymers with excellent thermal, chemical, and hydrolysis resistance. The diverse selection of Zytel® LCPA grades is targeted for a range of performance characteristics, balancing temperature resistance, flexibility and low permeation.

Zytel® LC7602 BK010A is a flexible, toughened and plasticized black polyamide resin intended for extrusion applications.

Product information

Resin Identification	PA-IP	ISO 1043
Part Marking Code	>PA-IP<	ISO 11469
ISO designation	ISO 16396-PA*-HIP,,M1CG1H,S14-007	

Typical mechanical properties

	dry/cond.		
Tensile modulus	97200 / -	psi	ISO 527-1/-2
Tensile stress at 50% strain	4060 / -	psi	ISO 527-1/-2
Flexural modulus	94300 / -	psi	ISO 178
Charpy impact strength, 23 °C	N / N	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30 °C	N / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	49 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -40 °C	5.71 / -	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23 °C	39 / -	ftlb/in²	ISO 180/1A
Izod notched impact strength, -40 °C	7.14 / -	ftlb/in²	ISO 180/1A

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	410 / *	°F	ISO 11357-1/-3
Glass transition temperature, 10 °C/min	122 / 104	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	104 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	118 / *	°F	ISO 75-1/-2

Flammability

FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	1.1	in/min	ISO 3795 (FMVSS 302)

Physical/Other properties

	dry/cond.		
Density	0.0372 / -	lb/in³	ISO 1183

Injection

Hold Pressure Time (h is the max. wall thickness of the part in mm)	h²+2	s

Extrusion

Drying Temperature	167 - 176	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.06	%
Melt Temperature Optimum	437	°F

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Melt Temperature Range	428 - 446 °F

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Hyundai	MS211-35 Type C	
Mercedes-Benz	DBL5406.00 PA12	
Stellantis	B62 0300 / 61/212M/215E-/H0412(FreecorDSC)/11	01994_16_00190

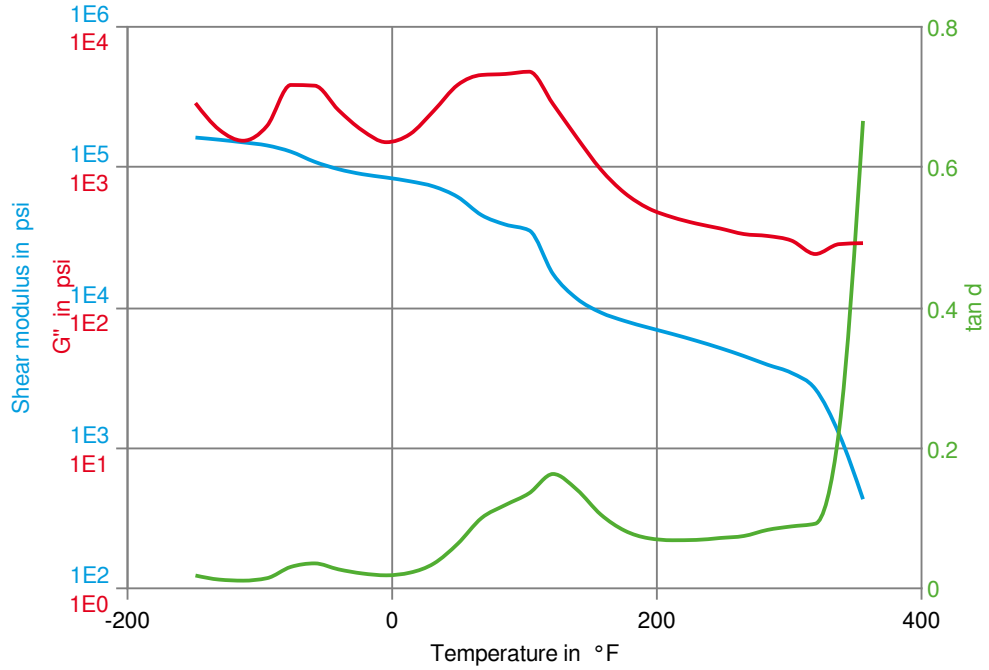
Characteristics

Processing	Injection Molding, Film Extrusion, Extrusion, Sheet Extrusion, Other Extrusion, Coating, Casting
Additives	Plasticizer
Special characteristics	High impact or impact modified, Light stabilized or stable to light, Heat stabilized or stable to heat

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Dynamic Shear modulus-temperature (dry)

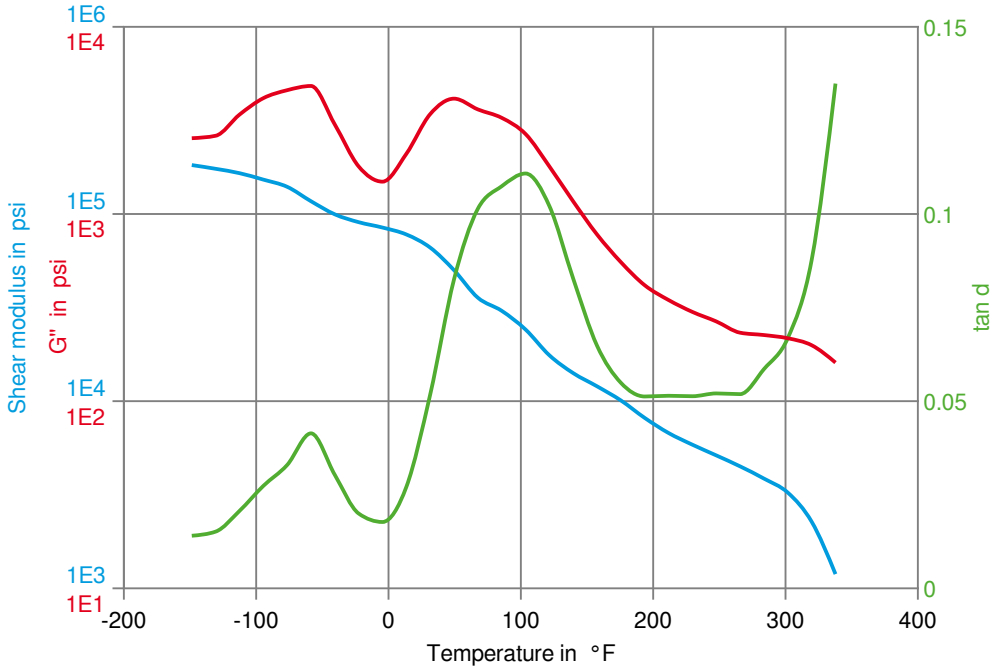


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Dynamic Shear modulus-temperature (cond.)



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Chemical Media Resistance

Salt solutions

- ✔ Zinc Chloride solution (50% by mass), 23 °C

Other

- ✔ Ethylene Glycol (50% by mass) in water, 108 °C
- ✔ Coolant Glysantin G48, 1:1 in water, 125 °C

Symbols used:

✔ possibly resistant
Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

✘ not recommended - see explanation
Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

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NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values. Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.
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