

Durethan BC700HTS 900116 DUSXBL

PA 6-Copolymer, non-reinforced, blow molding, heat-aging stabilized, improved impact strength, improved heat-aging stability. For the use in tank systems and pressure vessels please notice safety-related technical information within the High Performance Materials TechCenter under www.us.durethan-tank-systems.lanxess.com.

ISO Shortname: ISO 16396-PA 6/66-I,,BHS,S14-010

| Property | Test Condition | Unit | Standard | guide value ¹ | |
|---|----------------|---------------------|----------------------|--------------------------|-------|
| | | | | d.a.m. | cond. |
| Mechanical properties (23 °C/50 % r. h.) | | | | | |
| C Tensile modulus | 1 mm/min | MPa | ISO 527-1,-2 | 980 | 210 |
| C Yield stress | 50 mm/min | MPa | ISO 527-1,-2 | 37 | 30 |
| C Yield strain | 50 mm/min | % | ISO 527-1,-2 | 6.5 | |
| C Charpy impact strength | 23 °C | kJ/m ² | ISO 179-1eU | N | N |
| C Charpy impact strength | -30 °C | kJ/m ² | ISO 179-1eU | N | |
| C Charpy notched impact strength | 23 °C | kJ/m ² | ISO 179-1eA | 105 | |
| C Charpy notched impact strength | -30 °C | kJ/m ² | ISO 179-1eA | 75 | |
| Izod impact strength | 23 °C | kJ/m ² | ISO 180-1U | N | N |
| Izod impact strength | -30 °C | kJ/m ² | ISO 180-1U | N | |
| Izod notched impact strength | 23 °C | kJ/m ² | ISO 180-1A | 90 | |
| Izod notched impact strength | -30 °C | kJ/m ² | ISO 180-1A | 70 | |
| Flexural modulus | 2 mm/min | MPa | ISO 178-A | 980 | 230 |
| Flexural strength | 2 mm/min | MPa | ISO 178-A | 35 | 12 |
| Flexural strain at flexural strength | 2 mm/min | % | ISO 178-A | 6.1 | 9 |
| Flexural stress at 3.5 % strain | 2 mm/min | MPa | ISO 178-A | 30 | 7 |
| C Puncture maximum force | 23 °C | N | ISO 6603-2 | 3300 | |
| C Puncture maximum force | -30 °C | N | ISO 6603-2 | 4100 | |
| C Puncture energy | 23 °C | J | ISO 6603-2 | 50 | |
| C Puncture energy | -30 °C | J | ISO 6603-2 | 50 | |
| Shore hardness | D | - | DIN EN ISO 868 | 65 | 59 |
| Thermal properties | | | | | |
| C Melting temperature | 10 °C/min | °C | ISO 11357-1,-3 | 212 | |
| C Temperature of deflection under load | 1.80 MPa | °C | ISO 75-1,-2 | 48 | |
| C Temperature of deflection under load | 0.45 MPa | °C | ISO 75-1,-2 | 53 | |
| C Coefficient of linear thermal expansion, parallel | 23 to 55 °C | 10 ⁻⁴ /K | ISO 11359-1,-2 | 2.0 | |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C | 10 ⁻⁴ /K | ISO 11359-1,-2 | 2.0 | |
| Other properties (23 °C) | | | | | |
| C Water absorption (Saturation value) | Water at 23 °C | % | ISO 62 | 8,1 | |
| C Water absorption (Equilibrium value) | 23 °C; 50 % RH | % | ISO 62 | 1.9 | |
| C Density | | kg/m ³ | ISO 1183 | 1027 | |
| Processing conditions for test specimens | | | | | |
| C Injection molding-Melt temperature | | °C | ISO 294 | 270 | |
| C Injection molding-Mold temperature | | °C | ISO 294 | 80 | |
| Processing recommendations | | | | | |
| Drying temperature dry air dryer | | °C | - | 80 | |
| Drying time dry air dryer | | h | - | 2-6 | |
| Residual moisture content | | % | Acc. to Karl Fischer | 0.00-0.06 | |



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|--------------------------------|----------------|------|----------|--------------------------|
| Melt temperature (Tmin - Tmax) | | °C | - | d.a.m. 230-280 cond. |
| Mold temperature | | °C | - | 60-90 |

Notes

1 Typical properties: these are not to be construed as specifications

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.



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Standard Disclaimer

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Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling LANXESS products mentioned in this publication. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets (MSDS) and product labels. Consult your LANXESS Corporation representative or contact the Product Safety and Regulatory Affairs Department at LANXESS. For materials that are not LANXESS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturer(s) must be followed.

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Color and Visual Effects

Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.

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