# Durethan BG30XH2.0XF 901510

**PA 6, 30 % glass fibers/glass spheres, injection molding, heat-aging stabilized, improved flowability, improved surface finish, low tendency to warp**

**ISO Shortname:** ISO 16396-PA 6,(GB+GF)30,GHR,S10-050

| Property | Test Condition | Unit | Standard | guide value d.a.m. | guide value cond. |
|---|---|---|---|---|---|
| **Rheological properties** | | | | | |
| C Molding shrinkage, parallel | 60x60x2; 260 °C / MT 80 °C; 600 bar | % | ISO 294-4 | 0.4 | |
| C Molding shrinkage, transverse | 60x60x2; 260 °C / MT 80 °C; 600 bar | % | ISO 294-4 | 0.6 | |
| Post- shrinkage, parallel | 60x60x2; 120 °C; 4 h | % | ISO 294-4 | 0.2 | |
| Post- shrinkage, transverse | 60x60x2; 120 °C; 4 h | % | ISO 294-4 | 0.2 | |
| **Mechanical properties (23 °C/50 % r. h.)** | | | | | |
| C Tensile modulus | 1 mm/min | MPa | ISO 527-1,-2 | 5300 | 2800 |
| C Tensile Stress at break | 5 mm/min | MPa | ISO 527-1,-2 | 90 | 45 |
| C Tensile Strain at break | 5 mm/min | % | ISO 527-1,-2 | 3.2 | 6.5 |
| C Charpy impact strength | 23 °C | kJ/m² | ISO 179-1eU | 50 | 55 |
| C Charpy impact strength | -30 °C | kJ/m² | ISO 179-1eU | 40 | 35 |
| C Charpy notched impact strength | 23 °C | kJ/m² | ISO 179-1eA | <10 | 10 |
| C Charpy notched impact strength | -30 °C | kJ/m² | ISO 179-1eA | <10 | <10 |
| Izod impact strength | 23 °C | kJ/m² | ISO 180-1U | 40 | 50 |
| Izod impact strength | -30 °C | kJ/m² | ISO 180-1U | 35 | 30 |
| Izod notched impact strength | 23 °C | kJ/m² | ISO 180-1A | <10 | 10 |
| Izod notched impact strength | -30 °C | kJ/m² | ISO 180-1A | <10 | <10 |
| Flexural modulus | 2 mm/min | MPa | ISO 178-A | 5000 | 2700 |
| Flexural strength | 2 mm/min | MPa | ISO 178-A | 145 | 85 |
| Flexural strain at flexural strength | 2 mm/min | % | ISO 178-A | 3.8 | 6 |
| Flexural stress at 3.5 % strain | 2 mm/min | MPa | ISO 178-A | 140 | 70 |
| **Thermal properties** | | | | | |
| C Melting temperature | 10 °C/min | °C | ISO 11357-1,-3 | 220 | |
| C Temperature of deflection under load | 1.80 MPa | °C | ISO 75-1,-2 | 185 | |
| C Temperature of deflection under load | 0.45 MPa | °C | ISO 75-1,-2 | 210 | |
| Vicat softening temperature | 50 N; 120 °C/h | °C | ISO 306 | 195 | |
| C Coefficient of linear thermal expansion, parallel | 23 to 55 °C | $10^{-4}$/K | ISO 11359-1,-2 | 0.4 | |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C | $10^{-4}$/K | ISO 11359-1,-2 | 1.1 | |
| **Electrical properties (23 °C/50 % r. h.)** | | | | | |
| C Comparative tracking index CTI | Solution A | Rating | IEC 60112 | 475 | |
| **Other properties (23 °C)** | | | | | |
| C Density | | kg/m³ | ISO 1183 | 1320 | |
| **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 | |

# Durethan BG30XH2.0XF 901510

| Property | Test Condition | Unit | Standard | guide value d.a.m. | guide value cond. |
|---|---|---|---|---|---|
| Drying time dry air dryer | | h | - | 2-6 | |
| Residual moisture content | | % | Acc. to Karl Fischer | 0.03-0.12 | |
| Melt temperature (Tmin - Tmax) | | °C | - | 250-290 | |
| Mold temperature | | °C | - | 80-100 | |

**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.

# Durethan BG30XH2.0XF 901510

## Disclaimer

Standard Disclaimer

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee, and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

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.

Regulatory Compliance

Some of the end uses of the products described in this brochure must comply with applicable regulations, such as the FDA, NSF, USDA and CPSC. If you have any questions on the regulatory status of any LANXESS engineering thermoplastic, consult your LANXESS Corporation representative or contact the LANXESS Regulatory Affairs Manager.

Color and Visual Effects

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

**LANXESS** Corporation | Pittsburgh, PA 15275