

Lanxess Durethan® BC 700 HTS DUSXBL 900116 Nylon 6, Impact Modified

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Impact Grade

Material Notes:

PA 6, non-reinforced, blow molding, impact modified, heat-aging stabilized Information provided by LANXESS.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lanxess-Durethan-BC-700-HTS-DUSXBL-900116-Nylon-6-Impact-Modified.php

| Physical Properties | Metric | English | Comments |
|------------------------------------|------------|------------|----------------|
| Specific Gravity | 1.027 g/cc | 1.027 g/cc | ISO 1183 |
| Moisture Absorption at Equilibrium | 1.9 % | 1.9 % | 50% RH; ISO 62 |
| Water Absorption at Saturation | 8.1 % | 8.1 % | ISO 62 |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|------------------------|----------------------------|----------------------------------|
| Tensile Strength, Yield | 28.0 MPa | 4060 psi | d.a.m.; ISO 527-1, -2; 50 mm/min |
| Elongation at Yield | 6.5 % | 6.5 % | d.a.m.; ISO 527-1, -2; 50 mm/min |
| Tensile Modulus | 0.210 GPa | 30.5 ksi | cond.; ISO 527-1, -2; 1 mm/min |
| | 0.980 GPa | 142 ksi | d.a.m.; ISO 527-1, -2; 1 mm/min |
| Flexural Strength | 12.0 MPa | 1740 psi | cond., 2 mm/min; ISO 178-A |
| | @Strain 9.00 % | @Strain 9.00 % | |
| | 35.0 MPa | 5080 psi | d.a.m., 2 mm/min; ISO 178-A |
| | @Strain 6.10 % | @Strain 6.10 % | |
| Flexural Yield Strength | 7.00 MPa | 1020 psi | cond., 2 mm/min; ISO 178-A |
| | @Strain 3.50 % | @Strain 3.50 % | |
| | 30.0 MPa | 4350 psi | d.a.m., 2 mm/min; ISO 178-A |
| | @Strain 3.50 % | @Strain 3.50 % | |
| Flexural Modulus | 0.230 GPa | 33.4 ksi | cond., 2 mm/min; ISO 178-A |
| | 0.980 GPa | 142 ksi | d.a.m., 2 mm/min; ISO 178-A |
| Izod Impact, Notched (ISO) | 70.0 kJ/m ² | 33.3 ft-lb/in ² | d.a.m.; ISO 180-1A |
| | @Temperature -30.0 °C | @Temperature -22.0 °F | |
| | 90.0 kJ/m ² | 42.8 ft-lb/in ² | d.a.m.; ISO 180-1A |
| | @Temperature 23.0 °C | @Temperature 73.4 °F | |

| Mechanical Properties | Metric | English | Comments |
|------------------------------|--|--|---------------------|
| Izod Impact, Unnotched (ISO) | @Temperature 23.0 Â°C | @Temperature 73.4 Â°F | d.a.m.; ISO 180-1U |
| | NB | NB | cond.; ISO 180-1U |
| | @Temperature 23.0 Â°C | @Temperature 73.4 Â°F | |
| Charpy Impact Unnotched | NB | NB | d.a.m.; ISO 179-1eU |
| | @Temperature 23.0 Â°C | @Temperature 73.4 Â°F | |
| | NB | NB | cond.; ISO 179-1eU |
| Charpy Impact, Notched | NB | NB | d.a.m.; ISO 179-1eU |
| | @Temperature -30.0 Â°C | @Temperature -22.0 Â°F | |
| | NB | NB | cond.; ISO 179-1eU |
| Charpy Impact, Notched | 7.50 J/cmÂ² | 35.7 ft-lb/inÂ² | d.a.m.; ISO 179-1eA |
| | @Temperature -30.0 Â°C | @Temperature -22.0 Â°F | |
| | 10.5 J/cmÂ² | 50.0 ft-lb/inÂ² | d.a.m.; ISO 179-1eA |
| Puncture Energy | 50.0 J | 36.9 ft-lb | ISO 6603-2 |
| | @Load <=336 kg, Temperature 23.0 Â°C | @Load <=742 lb, Temperature 73.4 Â°F | |
| | 50.0 J | 36.9 ft-lb | ISO 6603-2 |
| Puncture Energy | @Load <=418 kg, Temperature -30.0 Â°C | @Load <=922 lb, Temperature -22.0 Â°F | |
| | 50.0 J | 36.9 ft-lb | ISO 6603-2 |
| | @Load <=418 kg, Temperature -30.0 Â°C | @Load <=922 lb, Temperature -22.0 Â°F | |

| Thermal Properties | Metric | English | Comments |
|---------------------------------|---------------------------------|--------------------------------|-----------------|
| CTE, linear, Parallel to Flow | 200 Âµm/m-Â°C | 111 Âµin/in-Â°F | ISO 11359-1, -2 |
| | @Temperature 23.0 - 55.0 Â°C | @Temperature 73.4 - 131 Â°F | |
| CTE, linear, Transverse to Flow | 200 Âµm/m-Â°C | 111 Âµin/in-Â°F | ISO 11359-1, -2 |
| | @Temperature 23.0 - 55.0 Â°C | @Temperature 73.4 - 131 Â°F | |

| Thermal Properties | Metric | English | Comments |
|---|----------|---------|--------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 53.0 Â°C | 127 Â°F | ISO 75-1, -2 |
| Deflection Temperature at 1.8 MPa (264 psi) | 48.0 Â°C | 118 Â°F | ISO 75-1, -2 |

| Processing Properties | Metric | English | Comments |
|-----------------------|-----------------|----------------|-----------------------------|
| Melt Temperature | 230 - 280 Â°C | 446 - 536 Â°F | |
| | 270 Â°C | 518 Â°F | for test specimens; ISO 294 |
| Mold Temperature | 60.0 - 90.0 Â°C | 140 - 194 Â°F | |
| | 80.0 Â°C | 176 Â°F | for test specimens; ISO 294 |
| Drying Temperature | 80.0 Â°C | 176 Â°F | |
| Dry Time | 2 - 6 hour | 2 - 6 hour | |
| Moisture Content | 0.00 - 0.060 % | 0.00 - 0.060 % | residual; Karl Fischer Test |

| Descriptive Properties | Value | Comments |
|------------------------|----------------------------------|----------|
| ISO Shortname | ISO 1874-PA 6/66-HI, BHS, 14-010 | |

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