

# Durethan® BC 700 HTS DUSXBL 900116

Polyamide 6  
LANXESS GmbH

Message:  
PA 6-Copolymer, non-reinforced, blow molding, heat-aging stabilized, improved impact strength, improved heat-aging stability

| General Information                                      |                         |                            |                   |              |
|----------------------------------------------------------|-------------------------|----------------------------|-------------------|--------------|
| Additive                                                 |                         | Heat Stabilizer            |                   |              |
| Features                                                 |                         | Copolymer                  |                   |              |
|                                                          |                         | Good Heat Aging Resistance |                   |              |
|                                                          |                         | Good Impact Resistance     |                   |              |
|                                                          |                         | Heat Stabilized            |                   |              |
| Processing Method                                        |                         | Blow Molding               |                   |              |
| Physical                                                 | Dry                     | Conditioned                | Unit              | Test Method  |
| Density (23°C)                                           | 1.03                    | --                         | g/cm <sup>3</sup> | ISO 1183     |
| Water Absorption                                         |                         |                            |                   | ISO 62       |
| Saturation, 23°C                                         | 8.1                     | --                         | %                 |              |
| Equilibrium, 23°C, 50% RH                                | 1.9                     | --                         | %                 |              |
| Hardness                                                 | Dry                     | Conditioned                | Unit              | Test Method  |
| Shore Hardness (Shore D, 23°C)                           | 65                      | 59                         |                   | ISO 868      |
| Mechanical                                               | Dry                     | Conditioned                | Unit              | Test Method  |
| Tensile Modulus (23°C)                                   | 980                     | 210                        | MPa               | ISO 527-2/1  |
| Tensile Stress (Yield, 23°C)                             | 28.0                    | --                         | MPa               | ISO 527-2/50 |
| Tensile Strain (Yield, 23°C)                             | 6.5                     | --                         | %                 | ISO 527-2/50 |
| Flexural Modulus <sup>1</sup> (23°C)                     | 980                     | 230                        | MPa               | ISO 178/A    |
| Flexural Stress                                          |                         |                            |                   | ISO 178/A    |
| 3.5% Strain,23°C                                         | 30.0                    | 7.00                       | MPa               |              |
| 23°C <sup>2</sup>                                        | 35.0                    | 12.0                       | MPa               |              |
| Flexural Strain at Flexural Strength <sup>3</sup> (23°C) | 6.1                     | 9.0                        | %                 | ISO 178/A    |
| ISO Shortname                                            | PA 6/66-HI, BHS, 14-010 | --                         |                   | ISO 1874     |
| Residual Moisture Content                                | 0.0 to 0.060            |                            | %                 | Karl Fisher  |
| Impact                                                   | Dry                     | Conditioned                | Unit              | Test Method  |
| Charpy Notched Impact Strength                           |                         |                            |                   | ISO 179/1eA  |
| -30°C                                                    | 75                      | --                         | kJ/m <sup>2</sup> |              |
| 23°C                                                     | 110                     | --                         | kJ/m <sup>2</sup> |              |
| Charpy Unnotched Impact Strength                         |                         |                            |                   | ISO 179/1eU  |

|                                            |              |             |                   |             |
|--------------------------------------------|--------------|-------------|-------------------|-------------|
| -30°C                                      | No Break     | --          |                   |             |
| 23°C                                       | No Break     | No Break    |                   |             |
| Notched Izod Impact Strength               |              |             |                   | ISO 180/1A  |
| -30°C                                      | 70           | --          | kJ/m <sup>2</sup> |             |
| 23°C                                       | 90           | --          | kJ/m <sup>2</sup> |             |
| Unnotched Izod Impact Strength             |              |             |                   | ISO 180/1U  |
| -30°C                                      | No Break     | --          |                   |             |
| 23°C                                       | No Break     | No Break    |                   |             |
| Multi-Axial Instrumented Impact Energy     |              |             |                   | ISO 6603-2  |
| -30°C                                      | 50.0         | --          | J                 |             |
| 23°C                                       | 50.0         | --          | J                 |             |
| Multi-Axial Instrumented Impact Peak Force |              |             |                   | ISO 6603-2  |
| -30°C                                      | 4100         | --          | N                 |             |
| 23°C                                       | 3300         | --          | N                 |             |
| Thermal                                    | Dry          | Conditioned | Unit              | Test Method |
| Heat Deflection Temperature                |              |             |                   |             |
| 0.45 MPa, Unannealed                       | 53.0         | --          | °C                | ISO 75-2/B  |
| 1.8 MPa, Unannealed                        | 48.0         | --          | °C                | ISO 75-2/A  |
| Melting Temperature <sup>4</sup>           | 212          | --          | °C                | ISO 11357-3 |
| CLTE                                       |              |             |                   | ISO 11359-2 |
| Flow : 23 to 55°C                          | 2.0E-4       | --          | cm/cm/°C          |             |
| Transverse : 23 to 55°C                    | 2.0E-4       | --          | cm/cm/°C          |             |
| Injection                                  | Dry          | Unit        | Test Method       |             |
| Drying Temperature - Dry Air Dryer         | 80.0         |             | °C                |             |
| Drying Time - Dry Air Dryer                | 2.0 to 6.0   |             | hr                |             |
| Processing (Melt) Temp                     | 230 to 280   |             | °C                |             |
| Mold Temperature                           | 60.0 to 90.0 |             | °C                |             |
| NOTE                                       |              |             |                   |             |
| 1.                                         | 2.0 mm/min   |             |                   |             |
| 2.                                         | 2.0 mm/min   |             |                   |             |
| 3.                                         | 2 mm/min     |             |                   |             |
| 4.                                         | 10°C/min     |             |                   |             |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

# Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

