

# Durethan® BKV 115 DUS008 000000

Polyamide 6

LANXESS Corporation

Message:

PA 6, 15% glass fibers, injection molding, improved impact strength

| General Information                                      |                           |                                                       |                   |             |
|----------------------------------------------------------|---------------------------|-------------------------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                   |                           | Glass fiber reinforced material, 15% filler by weight |                   |             |
| Features                                                 |                           | Impact resistance, good                               |                   |             |
| Agency Ratings                                           |                           | EC 1907/2006 (REACH)                                  |                   |             |
| Processing Method                                        |                           | Injection molding                                     |                   |             |
| Physical                                                 | Dry                       | Conditioned                                           | Unit              | Test Method |
| Density (23°C)                                           | 1.23                      | --                                                    | g/cm <sup>3</sup> | ISO 1183    |
| Mechanical                                               | Dry                       | Conditioned                                           | Unit              | Test Method |
| Tensile Modulus (23°C)                                   | 5600                      | 2800                                                  | MPa               | ISO 527-2/1 |
| Tensile Stress (Break, 23°C)                             | 115                       | 65.0                                                  | MPa               | ISO 527-2/5 |
| Tensile Strain (Break, 23°C)                             | 4.0                       | 12                                                    | %                 | ISO 527-2/5 |
| Flexural Modulus <sup>1</sup> (23°C)                     | 4900                      | 2500                                                  | MPa               | ISO 178/A   |
| Flexural Stress                                          |                           |                                                       |                   | ISO 178/A   |
| 3.5% strain, 23°C                                        | 165                       | 70.0                                                  | MPa               | ISO 178/A   |
| 23°C <sup>2</sup>                                        | 185                       | 95.0                                                  | MPa               | ISO 178/A   |
| Flexural Strain at Flexural Strength <sup>3</sup> (23°C) | 5.0                       | 8.0                                                   | %                 | ISO 178/A   |
| ISO Shortname                                            | PA 6-HI, GR, 14-060, GF15 | --                                                    |                   | ISO 1874    |
| Admissible Residence Time at Tmax                        | 1.3 - 1.7                 |                                                       | hr                |             |
| Residual Moisture Content                                | 0.030 - 0.12              |                                                       | %                 | Karl Fisher |
| Impact                                                   | Dry                       | Conditioned                                           | Unit              | Test Method |
| Charpy Notched Impact Strength                           |                           |                                                       |                   | ISO 179/1eA |
| -30°C                                                    | 10                        | --                                                    | kJ/m <sup>2</sup> | ISO 179/1eA |
| 23°C                                                     | < 10                      | --                                                    | kJ/m <sup>2</sup> | ISO 179/1eA |
| Charpy Unnotched Impact Strength                         |                           |                                                       |                   | ISO 179/1eU |
| -30°C                                                    | 50                        | --                                                    | kJ/m <sup>2</sup> | ISO 179/1eU |
| 23°C                                                     | 65                        | 80                                                    | kJ/m <sup>2</sup> | ISO 179/1eU |
| Thermal                                                  | Dry                       | Conditioned                                           | Unit              | Test Method |
| Heat Deflection Temperature                              |                           |                                                       |                   |             |
| 0.45 MPa, not annealed                                   | 215                       | --                                                    | °C                | ISO 75-2/B  |
| 1.8 MPa, not annealed                                    | 195                       | --                                                    | °C                | ISO 75-2/A  |
| Melting Temperature <sup>4</sup>                         | 220                       | --                                                    | °C                | ISO 11357-3 |

| Injection                          | Dry       | Unit | Test Method |
|------------------------------------|-----------|------|-------------|
| Drying Temperature - Dry Air Dryer | 80.0      |      | °C          |
| Drying Time - Dry Air Dryer        | 2.0 - 6.0 |      | hr          |
| Processing (Melt) Temp             | 260 - 290 |      | °C          |

| NOTE |            |  |  |
|------|------------|--|--|
| 1.   | 2.0 mm/min |  |  |
| 2.   | 2.0 mm/min |  |  |
| 3.   | 2 mm/min   |  |  |
| 4.   | 10°C/min   |  |  |

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