

# Durethan® B 35 FKA 000000

Polyamide 6  
LANXESS GmbH

Message:  
PA 6, non-reinforced, extrusion, medium viscosity, slip agent, nucleated

| General Information                                      |                 |                  |           |              |
|----------------------------------------------------------|-----------------|------------------|-----------|--------------|
| Features                                                 |                 | Medium Viscosity |           |              |
|                                                          |                 | Slip             |           |              |
| Processing Method                                        |                 | Extrusion        |           |              |
| Physical                                                 | Dry             | Conditioned      | Unit      | Test Method  |
| Density (23°C)                                           | 1.14            | --               | g/cm³     | ISO 1183     |
| Apparent Density                                         | 0.70            | --               | g/cm³     | ISO 60       |
| Melt Volume-Flow Rate (MVR) (235°C/2.16 kg)              | 7.00            | --               | cm³/10min | ISO 1133     |
| Water Absorption                                         |                 |                  |           | ISO 62       |
| Saturation, 23°C                                         | 10              | --               | %         |              |
| Equilibrium, 23°C, 50% RH                                | 3.0             | --               | %         |              |
| Hardness                                                 | Dry             | Conditioned      | Unit      | Test Method  |
| Ball Indentation Hardness                                | 130             | 40.0             | MPa       | ISO 2039-1   |
| Mechanical                                               | Dry             | Conditioned      | Unit      | Test Method  |
| Tensile Modulus (23°C)                                   | 2800            | 800              | MPa       | ISO 527-2/1  |
| Tensile Stress (Yield, 23°C)                             | 75.0            | 35.0             | MPa       | ISO 527-2/50 |
| Tensile Strain (Yield, 23°C)                             | 4.0             | 25               | %         | ISO 527-2/50 |
| Nominal Tensile Strain at Break (23°C)                   | 20              | > 50             | %         | ISO 527-2/50 |
| Flexural Modulus <sup>1</sup> (23°C)                     | 2600            | 700              | MPa       | ISO 178/A    |
| Flexural Stress (3.5% Strain,23°C)                       | 90.0            | 20.0             | MPa       | ISO 178/A    |
| Flexural Strain at Flexural Strength <sup>2</sup> (23°C) | 5.0             | 8.0              | %         | ISO 178/A    |
| ISO Shortname                                            | PA 6,ES,18-030N | --               |           | ISO 1874     |
| Impact                                                   | Dry             | Conditioned      | Unit      | Test Method  |
| Charpy Notched Impact Strength                           |                 |                  |           | ISO 179/1eA  |
| -30°C                                                    | 5.0             | < 5.0            | kJ/m²     |              |
| 23°C                                                     | 5.0             | 50               | kJ/m²     |              |
| Charpy Unnotched Impact Strength                         |                 |                  |           | ISO 179/1eU  |
| -30°C                                                    | No Break        | No Break         |           |              |

|                                         |             |             |                   |              |
|-----------------------------------------|-------------|-------------|-------------------|--------------|
| 23°C                                    | No Break    | No Break    |                   |              |
| Notched Izod Impact Strength            |             |             |                   | ISO 180/1A   |
| -30°C                                   | 7.0         | 7.5         | kJ/m <sup>2</sup> |              |
| 23°C                                    | 7.0         | 50          | kJ/m <sup>2</sup> |              |
| Thermal                                 | Dry         | Conditioned | Unit              | Test Method  |
| Heat Deflection Temperature             |             |             |                   |              |
| 0.45 MPa, Unannealed                    | 150         | --          | °C                | ISO 75-2/B   |
| 1.8 MPa, Unannealed                     | 50.0        | --          | °C                | ISO 75-2/A   |
| 8.0 MPa, Unannealed                     | 40.0        | --          | °C                | ISO 75-2/C   |
| Vicat Softening Temperature             | 200         | --          | °C                | ISO 306/B120 |
| Melting Temperature <sup>3</sup>        | 222         | --          | °C                | ISO 11357-3  |
| CLTE                                    |             |             |                   | ISO 11359-2  |
| Flow : 23 to 55°C                       | 8.0E-5      | --          | cm/cm/°C          |              |
| Transverse : 23 to 55°C                 | 8.0E-5      | --          | cm/cm/°C          |              |
| Electrical                              | Dry         | Conditioned | Unit              | Test Method  |
| Surface Resistivity                     | 1.0E+14     | 1.0E+13     | ohms              | IEC 60093    |
| Volume Resistivity (23°C)               | 1.0E+14     | 1.0E+12     | ohms·cm           | IEC 60093    |
| Electric Strength (23°C, 1.00 mm)       | 30          | 35          | kV/mm             | IEC 60243-1  |
| Relative Permittivity                   |             |             |                   | IEC 60250    |
| 23°C, 100 Hz                            | 3.90        | 18.0        |                   |              |
| 23°C, 1 MHz                             | 3.50        | 4.00        |                   |              |
| Comparative Tracking Index (Solution A) | 600         | --          | V                 | IEC 60112    |
| Flammability                            | Dry         | Conditioned | Unit              | Test Method  |
| Flame Rating                            |             |             |                   | UL 94        |
| 1.60 mm                                 | HB          | --          |                   |              |
| 3.20 mm                                 | HB          | --          |                   |              |
| Oxygen Index <sup>4</sup>               | 24          | --          | %                 | ISO 4589-2   |
| Injection                               | Dry         | Unit        |                   |              |
| Drying Temperature - Dry Air Dryer      | 80.0        |             | °C                |              |
| Drying Time - Dry Air Dryer             | 2.0 to 6.0  |             | hr                |              |
| NOTE                                    |             |             |                   |              |
| 1.                                      | 2.0 mm/min  |             |                   |              |
| 2.                                      | 2 mm/min    |             |                   |              |
| 3.                                      | 10°C/min    |             |                   |              |
| 4.                                      | Procedure A |             |                   |              |

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