

**Durethan B31SKH3.0LT 904040**  
**PA6**

LANXESS Deutschland GmbH

PA 6, non-reinforced, injection molding, heat-ageing stabilized, improved laser-transparency, NIR-laser transparent coloring (black)

| Rheological properties      | dry / cond | Unit | Test Standard   |
|-----------------------------|------------|------|-----------------|
| <b>ISO Data</b>             |            |      |                 |
| Molding shrinkage, parallel | 1.0 / *    | %    | ISO 294-4, 2577 |
| Molding shrinkage, normal   | 1.1 / *    | %    | ISO 294-4, 2577 |

| Mechanical Properties                   | dry / cond          | Unit              | Test Standard |
|-----------------------------------------|---------------------|-------------------|---------------|
| <b>ISO Data</b>                         |                     |                   |               |
| Tensile Modulus                         | 3500 / 1000         | MPa               | ISO 527       |
| Yield stress                            | 80 / 45             | MPa               | ISO 527       |
| Yield strain                            | 4 / 20              | %                 | ISO 527       |
| Nominal strain at break                 | 10 / >50            | %                 | ISO 527       |
| Charpy impact strength (+23 °C)         | no break / no break | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy impact strength, -30 °C          | no break / no break | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy notched impact strength (+23 °C) | - / 25              | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Puncture - maximum force, +23 °C        | 5760 / -            | N                 | ISO 6603-2    |
| Puncture - maximum force, -30 °C        | 6120 / -            | N                 | ISO 6603-2    |
| Puncture energy, +23 °C                 | 70 / -              | J                 | ISO 6603-2    |
| Puncture energy, -30 °C                 | 50 / -              | J                 | ISO 6603-2    |

| Thermal Properties                          | dry / cond | Unit  | Test Standard  |
|---------------------------------------------|------------|-------|----------------|
| <b>ISO Data</b>                             |            |       |                |
| Melting temperature (10 °C/min)             | 221 / *    | °C    | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa)   | 60 / *     | °C    | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa)   | 170 / *    | °C    | ISO 75-1/-2    |
| Coeff. of linear therm. expansion, parallel | 80 / *     | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal   | 100 / *    | E-6/K | ISO 11359-1/-2 |

| Electrical Properties | dry / cond  | Unit  | Test Standard |
|-----------------------|-------------|-------|---------------|
| <b>ISO Data</b>       |             |       |               |
| Volume resistivity    | 1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |

| Other Properties    | dry / cond | Unit              | Test Standard  |
|---------------------|------------|-------------------|----------------|
| <b>ISO Data</b>     |            |                   |                |
| Water absorption    | 10 / *     | %                 | Sim. to ISO 62 |
| Humidity absorption | 3 / *      | %                 | Sim. to ISO 62 |
| Density             | 1130 / -   | kg/m <sup>3</sup> | ISO 1183       |

| Test specimen production            | Value | Unit | Test Standard |
|-------------------------------------|-------|------|---------------|
| <b>ISO Data</b>                     |       |      |               |
| Injection Molding, melt temperature | 270   | °C   | ISO 294       |
| Injection Molding, mold temperature | 80    | °C   | ISO 294       |

**Characteristics**
**Processing**

Injection Molding

**Special Characteristics**

Heat aging stabilized

**Delivery form**

Pellets

**Injection Molding**
**PREPROCESSING**

Residual moisture content: 0.03-0.12 %

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer: 2-6 h

**PROCESSING**

Melt temperature (Tmin - Tmax): 260-280 °C

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Mold temperature: 80-100 °C

#### Disclaimer

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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