

**Durethan BC40SR2**  
**PA6**

LANXESS Deutschland GmbH

PA 6, non-reinforced, injection moulding, impact modified

| Mechanical Properties                  | dry / cond          | Unit              | Test Standard |
|----------------------------------------|---------------------|-------------------|---------------|
| <b>ISO Data</b>                        |                     |                   |               |
| Tensile Modulus                        | 2700 / 1200         | MPa               | ISO 527       |
| Yield stress                           | 70 / 40             | MPa               | ISO 527       |
| Yield strain                           | 4 / 30              | %                 | ISO 527       |
| Nominal strain at break                | 20 / >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) | 20 / 100            | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Charpy notched impact strength, -30°C  | 15 / 15             | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Puncture energy, +23°C                 | 150 / 30            | J                 | ISO 6603-2    |
| Puncture energy, -30°C                 | 90 / -              | J                 | ISO 6603-2    |

| Thermal Properties                        | dry / cond | Unit  | Test Standard  |
|-------------------------------------------|------------|-------|----------------|
| <b>ISO Data</b>                           |            |       |                |
| Melting temperature (10°C/min)            | 222 / *    | °C    | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 50 / *     | °C    | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa) | 130 / *    | °C    | ISO 75-1/-2    |
| Vicat softening temperature, 50°C/h 50N   | 180 / *    | °C    | ISO 306        |
| Burning behav. at 1.5 mm nom. thickn.     | HB / *     | class | UL 94          |
| Thickness tested                          | 1.6 / *    | mm    | -              |
| Burning behav. at thickness h             | HB / *     | class | UL 94          |
| Thickness tested                          | 3.2 / *    | mm    | -              |
| Oxygen index                              | 21 / *     | %     | ISO 4589-1/-2  |

| Electrical Properties        | dry / cond  | Unit  | Test Standard |
|------------------------------|-------------|-------|---------------|
| <b>ISO Data</b>              |             |       |               |
| Relative permittivity, 100Hz | 4 / 14      | -     | IEC 62631-2-1 |
| Relative permittivity, 1MHz  | 3.3 / 4     | -     | IEC 62631-2-1 |
| Dissipation factor, 100Hz    | 125 / 1900  | E-4   | IEC 62631-2-1 |
| Dissipation factor, 1MHz     | 200 / 900   | E-4   | IEC 62631-2-1 |
| Volume resistivity           | 1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity          | * / 1E13    | Ohm   | IEC 62631-3-2 |
| Electric strength            | 35 / 30     | kV/mm | IEC 60243-1   |
| Comparative tracking index   | 600 / -     | -     | IEC 60112     |

| Other Properties    | dry / cond | Unit              | Test Standard  |
|---------------------|------------|-------------------|----------------|
| <b>ISO Data</b>     |            |                   |                |
| Water absorption    | 9 / *      | %                 | Sim. to ISO 62 |
| Humidity absorption | 2.7 / *    | %                 | Sim. to ISO 62 |
| Density             | 1100 / -   | 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**

Impact modified, Heat aging stabilized

**Delivery form**

Pellets

**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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