

# Durethan® B40FKA

## PA6

Film Extrusion, Unreinforced, Extrusion, Food Contact Quality, High Viscosity, Nucleated

| PROPERTIES                                   | TYPICAL DATA      | UNIT   | TEST METHOD     |
|----------------------------------------------|-------------------|--------|-----------------|
| <b>MECHANICAL PROPERTIES</b>                 |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Tensile modulus                              | 2800 / 800        | MPa    | ISO 527-1/-2    |
| Nominal strain at break                      | 20 / >50          | %      | ISO 527-1/-2    |
| Yield stress                                 | 75 / 35           | MPa    | ISO 527-1/-2    |
| Yield strain                                 | 4 / 25            | %      | ISO 527-1/-2    |
| Charpy impact strength (+23°C)               | N / N             | kJ/m²  | ISO 179/1eU     |
| Charpy impact strength (-30°C)               | N / N             | kJ/m²  | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | 5 / 50            | kJ/m²  | ISO 179/1eA     |
| Charpy notched impact strength (-30°C)       | 5 / -             | kJ/m²  | ISO 179/1eA     |
| <b>THERMAL PROPERTIES</b>                    |                   |        |                 |
|                                              | <b>DRY / COND</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)    | 150 / *           | °C     | ISO 75-1/-2     |
| Coeff. of linear therm. expansion (parallel) | 0.8 / *           | E-4/°C | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | 0.8 / *           | E-4/°C | ISO 11359-1/-2  |
| Burning Behav. at 1.5 mm nom. thickn.        | HB / *            | class  | IEC 60695-11-10 |
| Thickness tested                             | 1.5 / *           | mm     | IEC 60695-11-10 |
| Burning Behav. at 0.75 mm nom. thickn.       | HB / *            | class  | IEC 60695-11-10 |
| Thickness tested                             | 0.75 / *          | mm     | IEC 60695-11-10 |
| Oxygen index                                 | 24 / *            | %      | ISO 4589-1/-2   |
| <b>ELECTRICAL PROPERTIES</b>                 |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Relative permittivity (100Hz)                | 3.9 / 18          | -      | IEC 62631-2-1   |



Property Data

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| PROPERTIES                       | TYPICAL DATA | UNIT  | TEST METHOD         |
|----------------------------------|--------------|-------|---------------------|
| Relative permittivity (1 MHz)    | 3.5 / 4      | —     | IEC 62631-2-1       |
| Volume resistivity               | 1E12 / 1E10  | Ohm*m | IEC 62631-3-1       |
| Surface resistivity              | * / 1E13     | Ohm   | IEC 62631-3-2       |
| Electric strength                | 30 / 35      | kV/mm | IEC 60243-1         |
| Comparative tracking index       | 600 / —      | V     | IEC 60112           |
| OTHER PROPERTIES                 | DRY / COND   |       |                     |
| Water absorption                 | 10 / *       | %     | Sim. to ISO 62      |
| Humidity absorption              | 3 / *        | %     | Sim. to ISO 62      |
| Density                          | 1140 / —     | kg/m³ | ISO 1183            |
| MATERIAL SPECIFIC PROPERTIES     | DRY / COND   |       |                     |
| Viscosity number                 | 225 / *      | cm³/g | ISO 307, 1157, 1628 |
| PROCESSING RECOMMENDATIONS       | VALUE        |       |                     |
| Drying temperature dry air dryer | 80           | °C    |                     |
| Drying time dry air dryer        | 2-6          | h     |                     |

