

Datasheet **Durethan B40SK 000000**

PA 6, non-reinforced, injection molding

ISO Shortname: ISO 16396-PA 6,,GR,S22-030

| Property | Test Condition | Unit | Standard | guide value dry as molded | 1 conditioned |
|---|-------------------|----------|------------|------------------------------|------------------|
| Mechanical properties (23 °C/50 % r. h.) | | | | | |
| Tensile modulus | 1 mm/min | lb/in² | ASTM D 638 | 450000 | 145000 |
| Tensile stress at yield | - | lb/in² | ASTM D 638 | 12300 | 5800 |
| Tensile elongation at yield | - | % | ASTM D 638 | 4.0 | 25 |
| Tensile elongation at break | - | % | ASTM D 638 | > 50 | > 50 |
| Tensile stress at break | - | lb/in² | ASTM D 638 | 8000 | 8000 |
| Izod notched impact strength | 73 °F, 0.125 in | ft-lb/in | ASTM D 256 | 1.3 | 18 |
| Flexural modulus | - | lb/in² | ASTM D 790 | 392000 | 102000 |
| Flexural stress at 5 % strain | | lb/in² | ASTM D 790 | 16700 | 5080 |
| Thermal properties | | | | | |
| Deflection temperature under load, Unannealed | 66 psi; 0.157 in | °F | ASTM D 648 | 356 | |
| Deflection temperature under load, Unannealed | 264 psi; 0.157 in | °F | ASTM D 648 | 140 | |
| Other properties (23 °C) | | | | | |
| Density | | lb/in³ | ASTM D 792 | 0.041 | |
| Specific gravity | | - | ASTM D 792 | 1.14 | |

Notes

1 Typical properties: these are not to be construed as specifications



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Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the coloring.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.

Conditioning

Conditioning in accordance with ISO 1110 (70 °C; 62 % r.h.)

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