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# Datasheet
# Durethan AKV30XTS2 901510

**PA 66, 30% glass fibers, injection molding, heat-aging stabilized, high temperature stabilized, improved surface finish**

**ISO Shortname:** ISO 16396-PA 66+PA 6-I,GF30,GHR,S14-100

| Property | Test Condition | Unit | Standard | guide value [1] d.a.m. | guide value [1] cond. |
|---|---|---|---|---|---|
| **Rheological properties** | | | | | |
| C Molding shrinkage, parallel | 60x60x2 | % | ISO 294-4 | 0.35 | |
| C Molding shrinkage, transverse | 60x60x2 | % | ISO 294-4 | 0.7 | |
| Post- shrinkage, parallel | 60x60x2 | % | ISO 294-4 | 0.1 | |
| Post- shrinkage, transverse | 60x60x2 | % | ISO 294-4 | 0.18 | |
| **Mechanical properties (23 °C/50 % r. h.)** | | | | | |
| C Tensile modulus | 1 mm/min | MPa | ISO 527-1,-2 | 10000 | 6500 |
| C Tensile Stress at break | 5 mm/min | MPa | ISO 527-1,-2 | 190 | 120 |
| C Tensile Strain at break | 5 mm/min | % | ISO 527-1,-2 | 3 | 7.5 |
| C Charpy impact strength | 23 °C | kJ/m² | ISO 179-1eU | 60 | 95 |
| C Charpy impact strength | -30 °C | kJ/m² | ISO 179-1eU | 50 | 45 |
| C Charpy notched impact strength | 23 °C | kJ/m² | ISO 179-1eA | <10 | 12 |
| C Charpy notched impact strength | -30 °C | kJ/m² | ISO 179-1eA | <10 | <10 |
| Izod impact strength | 23 °C | kJ/m² | ISO 180-1U | 50 | 75 |
| Izod impact strength | -30 °C | kJ/m² | ISO 180-1U | 50 | 50 |
| Izod notched impact strength | 23 °C | kJ/m² | ISO 180-1A | <10 | 12 |
| Flexural modulus | 2 mm/min | MPa | ISO 178-A | 9500 | 6500 |
| Flexural strength | 2 mm/min | MPa | ISO 178-A | 280 | 195 |
| Flexural strain at flexural strength | 2 mm/min | % | ISO 178-A | 3.8 | 6.5 |
| Flexural stress at 3.5 % strain | 2 mm/min | MPa | ISO 178-A | 270 | 160 |
| C Puncture maximum force | 23 °C | N | ISO 6603-2 | 750 | 920 |
| C Puncture maximum force | -30 °C | N | ISO 6603-2 | 700 | 715 |
| C Puncture energy | 23 °C | J | ISO 6603-2 | 2.4 | 3.8 |
| C Puncture energy | -30 °C | J | ISO 6603-2 | 2.2 | 2.1 |
| Ball indentation hardness | | N/mm² | ISO 2039-1 | 225 | |
| **Thermal properties** | | | | | |
| C Melting temperature | 10 °C/min | °C | ISO 11357-1,-3 | 260 | |
| C Temperature of deflection under load | 1.80 MPa | °C | ISO 75-1,-2 | 235 | |
| C Temperature of deflection under load | 0.45 MPa | °C | ISO 75-1,-2 | 250 | |
| Vicat softening temperature | 50 N; 120 °C/h | °C | ISO 306 | 235 | |
| C Coefficient of linear thermal expansion, parallel | 23 to 55 °C | $10^{-4}$/K | ISO 11359-1,-2 | 0.23 | |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C | $10^{-4}$/K | ISO 11359-1,-2 | 0.9 | |
| **Electrical properties (23 °C/50 % r. h.)** | | | | | |
| C Comparative tracking index CTI | Solution A | Rating | IEC 60112 | 525 | |



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|---|---|---|---|---|---|---|
| | **Other properties (23 °C)** | | | | | |
| C | Water absorption (Saturation value) | Water at 23 °C | % | ISO 62 | 6.3 | |
| C | Density | | kg/m³ | ISO 1183 | 1380 | |
| | Bulk density | | kg/m³ | ISO 60 | 630 | |
| | **Processing conditions for test specimens** | | | | | |
| C | Injection molding-Melt temperature | | °C | ISO 294 | 290 | |
| C | Injection molding-Mold temperature | | °C | ISO 294 | 80 | |
| | **Processing recommendations** | | | | | |
| | Drying temperature dry air dryer | | °C | - | 80 | |
| | Drying time dry air dryer | | h | - | 2-6 | |
| | Residual moisture content | | % | Acc. to Karl Fischer | 0.03-0.12 | |
| | Melt temperature (Tmin - Tmax) | | °C | - | 270-290 | |
| | admissible residence time at Tmax | | min | - | <5 | |
| | Mold temperature | | °C | - | 80-100 | |

Notes

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

**C** These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

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Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

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Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.