# Durethan® AKV 30 GIT H2.0 900116

Polyamide 66

LANXESS GmbH

## Message:

PA 66, 30 % glass fibers, injection molding, heat-aging stabilized, improved surface finish, GIT/WIT

| General Information | |
|---|---|
| Filler / Reinforcement | Glass Fiber,30% Filler by Weight |
| Additive | Heat Stabilizer |
| Features | Good Surface Finish<br>Heat Stabilized |
| Processing Method | Injection Molding |
| Multi-Point Data | Shear Modulus vs. Temperature (ISO 11403-1)<br>Specific Volume vs Temperature (ISO 11403-2) |

| Physical | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Density (23°C) | 1.37 | -- | g/cm³ | ISO 1183 |
| Apparent Density | 0.70 | -- | g/cm³ | ISO 60 |
| Molding Shrinkage | | | | ISO 2577 |
| Across Flow : 290°C, 3.00 mm [1] | 0.93 | -- | % | |
| Across Flow : 120°C, 4 hr, 3.00 mm [2] | 0.080 | -- | % | |
| Flow : 290°C, 3.00 mm [3] | 0.22 | -- | % | |
| Flow : 120°C, 4 hr, 3.00 mm [4] | 0.040 | -- | % | |
| Water Absorption | | | | ISO 62 |
| Saturation, 23°C | 6.0 | -- | % | |
| Equilibrium, 23°C, 50% RH | 2.0 | -- | % | |
| **Hardness** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Ball Indentation Hardness | 215 | -- | MPa | ISO 2039-1 |
| **Mechanical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Tensile Modulus (23°C) | 9200 | 6600 | MPa | ISO 527-2/1 |
| Tensile Stress (Break, 23°C) | 190 | 120 | MPa | ISO 527-2/5 |
| Tensile Strain (Break, 23°C) | 4.0 | 6.0 | % | ISO 527-2/5 |
| Flexural Modulus [5] (23°C) | 8500 | 6000 | MPa | ISO 178/A |
| Flexural Stress | | | | ISO 178/A |
| 3.5% Strain,23°C | 260 | 160 | MPa | |
| 23°C [6] | 280 | 180 | MPa | |

| | | | | |
|---|---|---|---|---|
| Flexural Strain at Flexural Strength [7] (23°C) | 4.5 | 6.0 | % | ISO 178/A |
| Burning Behavior [8] (> 1.00 mm) | passed | -- | | ISO 3795 |
| ISO Shortname | PA 66, GHR, 14-090, GF30 | -- | | ISO 1874 |
| Residual Moisture Content | 0.030 to 0.12 | | % | Karl Fisher |
| **Impact** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | | | | ISO 179/1eA |
| -40°C | < 10 | < 10 | kJ/m² | |
| -30°C | < 10 | < 10 | kJ/m² | |
| 23°C | 10 | 15 | kJ/m² | |
| Charpy Unnotched Impact Strength | | | | ISO 179/1eU |
| -30°C | 60 | 60 | kJ/m² | |
| 23°C | 70 | 80 | kJ/m² | |
| Notched Izod Impact Strength | | | | ISO 180/1A |
| -30°C | 10 | 10 | kJ/m² | |
| 23°C | 10 | 15 | kJ/m² | |
| Unnotched Izod Impact Strength | | | | ISO 180/1U |
| -30°C | 50 | 50 | kJ/m² | |
| 23°C | 60 | 70 | kJ/m² | |
| Multi-Axial Instrumented Impact Energy | | | | ISO 6603-2 |
| -30°C | 2.30 | -- | J | |
| 23°C | 2.50 | 4.00 | J | |
| Multi-Axial Instrumented Impact Peak Force | | | | ISO 6603-2 |
| -30°C | 770 | -- | N | |
| 23°C | 850 | 1040 | N | |
| **Thermal** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Heat Deflection Temperature | | | | |
| 0.45 MPa, Unannealed | 250 | -- | °C | ISO 75-2/B |
| 1.8 MPa, Unannealed | 230 | -- | °C | ISO 75-2/A |
| 8.0 MPa, Unannealed | 90.0 | -- | °C | ISO 75-2/C |
| Vicat Softening Temperature | > 230 | -- | °C | ISO 306/B50, ISO 306/B120 |
| Melting Temperature [9] | 260 | -- | °C | ISO 11357-3 |
| CLTE | | | | ISO 11359-2 |
| Flow : 23 to 55°C | 3.0E-5 | -- | cm/cm/°C | |
| Transverse : 23 to 55°C | 8.0E-5 | -- | cm/cm/°C | |
| **Electrical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |

| | | | | |
|---|---|---|---|---|
| Surface Resistivity | 1.0E+15 | 1.0E+13 | ohms | IEC 60093 |
| Volume Resistivity (23°C) | 1.0E+15 | 1.0E+12 | ohms·cm | IEC 60093 |
| Electric Strength (23°C, 1.00 mm) | 45 | 40 | kV/mm | IEC 60243-1 |
| Relative Permittivity | | | | IEC 60250 |
| 23°C, 100 Hz | 4.00 | 8.00 | | |
| 23°C, 1 MHz | 3.80 | 4.20 | | |
| Dissipation Factor | | | | IEC 60250 |
| 23°C, 100 Hz | 8.0E-3 | 0.21 | | |
| 23°C, 1 MHz | 0.016 | 0.070 | | |
| Comparative Tracking Index (Solution A) | 475 | -- | V | IEC 60112 |

| Flammability | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Flame Rating | | | | UL 94 |
| -- | HB | -- | | |
| 1.60 mm | HB | -- | | |
| Glow Wire Flammability Index (2.00 mm) | 650 | -- | °C | IEC 60695-2-12 |
| Oxygen Index [10] | 25 | -- | % | ISO 4589-2 |

| Injection | Dry | Unit | Test Method |
|---|---|---|---|
| Drying Temperature - Dry Air Dryer | 80.0 | | °C |
| Drying Time - Dry Air Dryer | 2.0 to 6.0 | | hr |
| Processing (Melt) Temp | 280 to 300 | | °C |
| Mold Temperature | 80.0 to 120 | | °C |

| NOTE | |
|---|---|
| 1. | 150x105x3mm, 80°C MT, 500 bar |
| 2. | 150x105x3mm |
| 3. | 150x105x3mm, 80°C MT, 500 bar |
| 4. | 150x105x3mm |
| 5. | 2.0 mm/min |
| 6. | 2.0 mm/min |
| 7. | 2 mm/min |
| 8. | US-FMVSS302 |
| 9. | 10°C/min |
| 10. | Procedure A |



## Recommended distributors for this material

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