

TR AidAMID® E (PA6 E)

Density 1,13 g/cm³

Colour Natural opaque

Chemical Designation PA6 E (Polyamide 6 extruded)

| PROPERTIES | RESULT | UNIT | PARAMETER | NORM USED |
|---------------------------------|------------------|--------------------|--|---------------------|
| Mechanical properties | | | | |
| Modulus of elasticity | 3000 | MPa | 1 mm/min | DIN EN ISO 527-2 |
| Tensile strength at yield | 85 | MPa | 50 mm/min | DIN EN ISO 527-2 |
| Elongation at break | 70 | % | 50 mm/min | DIN EN ISO 527-2 |
| Impact strength (Charpy) | No break | Kj/m ² | Máx 7,5j | DIN EN ISO 179-1EU |
| Ball indentation hardness | 160 | MPa | | ISO 2039-1 |
| Creep rupture with static load | 45 | MPa | After 1000 hours | |
| Time yield limit fir 1% elong | 4,50 | MPa | After 1000 hours | |
| Coefficient of friction | 0,38 - 0,45 | = | Against steel p=0,05 N/mm ² | |
| Thermal Properties | | | | |
| Glass transition temperature | 60 | °C | | DIN 53765 |
| Melting temperature | 220 | °C | | DIN 53765 |
| Service temperature | 160 | °C | Short term | |
| Service temperature | 100 | °C | Long term | |
| Thermal expansion | 8 | 10 ⁻⁵ K | | DIN 53483 |
| Specific heat | 1,7 | J/(g+K) | | ISO 22007-4:2008 |
| Thermal conductivity | 0,23 | W/(K+m) | | ISO 22007-4:2008 |
| Electrical Properties | | | | |
| Surface resistance | 10 ¹² | Ω | | DIN IEC 60093 |
| Specific volume resistance | 10 ¹³ | Ω . cm | | DIN IEC 60093 |
| Dielectric constant | 3,70 / 7 | | At 10 ⁵ Hz | DIN 53483 |
| Dielectric loss factor | 0,031 / 0,30 | | At 10 ⁵ Hz | DIN 53483 |
| Dielectric strength | 50 / 20 | kV / mm | 1 mm | ASTM 149 |
| Tracking resistance | CTI 600 | | | DIN 53480 |
| Miscellaneous Properties | | | | |
| Water absorption | 3 | % | 24h / 96h (23 °C) | DIN EN ISO 62 |
| Resistance to hot mater/bases | Limite | | | |
| Resistance to weathering | Not resistant | | | |
| Flammability (UL94) | HB | | According to | DIN IEC 60995-11-10 |

Main Characteristics

Very abrasion resistant

Electrically insulating

Good chemical resistance to many oils, diesel, petrol and greases

Tough and rigid

Easy machined

Industry Applications

Impact and daping plates

Conveyor screws

Friction bearings

Castors

Gear wheels