

TKG® AL BLACK (POM C BLACK)

Density 1,41 g/cm³
Colour Black opaque
Chemical Designation POM C (Polyacetal copolymer)

| PROPERTIES | RESULT | UNIT | PARAMETER | NORM USED |
|-----------------------------------|--------------------|----------------------------------|---------------------------|----------------------|
| Mechanical properties | | | | |
| Modulus of elasticity | 2800 | MPa | 1 mm/min | DIN EN ISO 527-2 |
| Tensile strength | 67 | MPa | 50 mm/min | DIN EN ISO 527-2 |
| Tensile strength at yield | 67 | MPa | 50 mm/min | DIN EN ISO 527-2 |
| Elongation at yield | 9 | % | 50 mm/min | DIN EN ISO 527-2 |
| Elongation at break | 32 | % | 50 mm/min | DIN EN ISO 527-2 |
| Flexural strength | 91 | MPa | 2 mm/min , 10 N | DIN EN ISO 178 |
| Modulus of elasticity (flex test) | 2600 | MPa | 2 mm/min , 10 N | DIN EN ISO 178 |
| Compression strength | 20 / 35 | MPa | 1% / 2% . 5 mm/min , 10 N | EN ISO 604 |
| Compression modulus | 2300 | MPa | 5 mm/min , 10 N | EN ISO 604 |
| Impact strength (Charpy) | 150 | Kj/m ² | Max. 7,5j | DIN EN ISO 179-1EU |
| Notched impact stren. (Charpy) | 6 | Kj/m ² | Max. 7,5j | DIN EN ISO 179-1EU |
| Ball indentation hardness | 165 | MPa | | ISO 2039-1 |
| Thermal properties | | | | |
| Glass transition temperature | - 60 | °C | | DIN 53765 |
| Melting temperature | 166 | °C | | DIN 53765 |
| Service temperature | 140 | °C | Short term | |
| Service temperature | 100 | °C | Long term | |
| Thermal expansion | 13 | 10 ⁻⁵ K ⁻¹ | 23-60°C long | DIN EN ISO 11359-1;2 |
| Thermal expansion | 14 | 10 ⁻⁵ K ⁻¹ | 23-100°C long | DIN EN ISO 11359-1;2 |
| Specific heat | 1,4 | J/(g+K) | | ISO 22007-4:2008 |
| Thermal conductivity | 0,39 | W/(K+m) | | ISO 22007-4:2008 |
| Electrical properties | | | | |
| Surface resistance | > 10 ¹² | Ω | | DIN IEC 60093 |
| Miscellaneous properties | | | | |
| Water absorption | 0,05 / 0,1 | % | 24h / 96h (23°C) | DIN EN ISO 62 |
| Resistance to hot mater / bases | (+) | | | |
| Resistance to weathering | (+) | | | |
| Flammability (UL94) | HB | | According to | DIN IEC 60995-11-10 |

MAIN CHARACTERISTICS

High toughness
Good machinability
High strength
Resistant against cleaning agents
Good slide and wear resistance

INDUSTRY APPLICATIONS

Medical technology
Food engineering
Packaging machinery
Automotive industry
Mechanical engineering

Notice: The information given was made with our knowledge indicating our product's possible applications. Existing commercial patents must be observed. These values represent averages taken from samples, so we reserve the right of technical alterations. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review, the most recent update can be found at www.traidvillarroya.com. Traidamid, TKG and TVH as well as their logos are registered trademarks of the Traid Villarroya group of companies, in Europe and other countries.