

Datasheet AE1500XC20



AE1500XC20, blended, with ceramic fillers, has excellent dimensional stability across a broad range of temperature and humidity conditions and has a good dielectric properties for isolative applications. When compared to PAI or other irridized polymers, this grade has greater hydrolytic stability. When compared with ceramics, it is half the weight and offers greater impact resistance and toughness.

Application

Material

PEEK with ceramic.

Availability

| | Value | Unit |
|-----------------------|------------|------|
| Rod diameters | aug-90 | mm |
| Tube inside diameter | on request | |
| Tube outside diameter | on request | |
| Length standard | 3000 | mm |
| Sheet thickness | okt-50 | mm |
| Sheet size | 1000x2000 | mm |



AE1500XC20 - Specifications

Physical properties

| | Test standard | Value | Unit |
|-------------------------------------|---------------|------------|-------------------|
| Density | | 1,49 | g/cm ³ |
| Thermal conductivity | | on request | |
| Specific heat capacity | | on request | |
| Moisture absorption at 23°C, 50% RH | | on request | |
| Water absorption at 23 °C | ISO 62 | 0,2 | % |
| Flammability | UL 94 | V-0 | [-] |

Mechanical properties

| | Test standard | Value | Unit |
|--------------------------------------|---------------|------------|-------------------|
| Tensile strength | ISO 527 | 105 | MPa |
| Yield stress | ISO 527 | 105 | MPa |
| Elongation at break | ISO 527 | 17 | % |
| Modulus of elasticity in tension | ISO 527 | 4900 | MPa |
| Bending modulus | | on request | |
| Flexural strength | | on request | |
| Charpy impact strength +23°C | ISO 179/1eU | no break | kJ/m ² |
| Charpy notched impact strength +23°C | ISO/1eA | 2,1 | kJ/m ² |
| Ball indentation hardness | ISO 2039-1 | 246 | MPa |
| Compressive modulus | ISO 604 | 6900 | MPa |

Thermal properties

| | Test standard | Value | Unit |
|---|---------------|------------|----------|
| Min. working temperature | | on request | |
| Max. working temperature | | 250 | °C |
| Intermittent working temperature | | 300 | °C |
| Heat distortion temperature | | on request | |
| Melting temperature | ISO 3146 | 340 | °C |
| Thermal coefficient of linear expansion | DIN 53752 | 4,5 | 1/K.10-5 |

Friction properties

| | Test standard | Value | Unit |
|--|---------------|-------|------|
|--|---------------|-------|------|

Electrical properties

| | Test standard | Value | Unit |
|-----------------------------|---------------|------------|------|
| Dielectric constant | | on request | |
| Dielectric loss factor | | on request | |
| Dielectric strength | | on request | |
| Dielectric constant at 1MHZ | IEC 250 | 3,9 | [-] |
| Volume resistivity | | on request | |

Electrical properties

| | | | |
|------------------------------|--|------------|--|
| Surface resistivity | | on request | |
| Resistance to tracking (CTI) | | on request | |

The information in this datasheet is provided for general purposes only and not meant to be a specific recommendation for any individual application. All values were determined under laboratory conditions. ASEC Products is not directly neither indirectly responsible for any claim resulting from the use of any information provided in this datasheet.