

Datasheet AE202MO



AS202MO is commonly used as a substitution material for bronze, aluminum and other non-ferro metals which needs a better sliding property and a slightly higher compressive strength. It has also an improved wear resistance and lower surface friction than AS202. Also, the moisture absorption is a bit lower.

Application

Slide bearings with low coefficient of friction, sleeves, cams, gears, pinions, thrust washers, valve seats and bearings.

Material

Polyamide with Molybdenum Disulphide.

Availability

	Value	Unit
Rod diameters	6-100	mm
Tube inside diameter	10-240	mm
Tube outside diameter	25-310	mm
Length standard	3000	mm
Sheet thickness	1,5-6	mm
Sheet size	1000x2000	mm



AE202MO - Specifications

Physical properties

	Test standard	Value	Unit
Density		1,15	g/cm ³
Thermal conductivity	Method A	0,37	W/m ^{°K}
Specific heat capacity	IEC 1006	1,7	J/g.K
Moisture absorption at 23°C, 50% RH	ISO 62	3	%
Water absorption at 23 °C	ISO 62	8	%
Flammability	UL 94	HB	[-]

Mechanical properties

	Test standard	Value	Unit
Tensile strength	ISO 527	90	MPa
Hardness	ISO 868	80	SHORE-D
Yield stress	ISO 527	90	MPa
Elongation at break	ISO 527	27	%
Modulus of elasticity in tension	ISO 527	3600	MPa
Bending modulus	ISO 178	3400	MPa
Flexural strength	ISO 178	130	MPa
Charpy impact strength +23°C	ISO 179/1eU	no break	kJ/m ²
Charpy notched impact strength +23°C	ISO/1eA	2,5	kJ/m ²
Ball indentation hardness	ISO 2039-1	172	N/mm ²
Compressive modulus	ISO 604	2400	MPa

Thermal properties

	Test standard	Value	Unit
Min. working temperature		-40	°C
Max. working temperature		90	°C
Intermittent working temperature		160	°C
Heat distortion temperature	Method A ISO 75	100	°C
Melting temperature	ISO 3146	220	°C
Thermal coefficient of linear expansion	DIN 53752	9	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	IEC 243	25	KV/mm
Dielectric constant at 1MHZ		on request	

Electrical properties

Volume resistivity	IEC 93	$>10^{12}$	$\Omega \cdot \text{cm}$
Surface resistivity	IEC 93	$>10^{12}$	Ω
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.