

Datasheet AE202SW



AS202 has a high resistance to abrasion and impact, a good example as a substitution material for bronze, aluminum and other non-ferrous metals. It has also significant weight advantages. AS202 reduces lubrication requirements and is non-abrasive to mating surfaces. AS202 is good for general purpose wear and structural parts which need a good balance of strength and toughness. AS202 is approved for contact with food.

Application

Pulp and paper industry, offshore and marine, textile, general machine building, food industry, material handling, electronics, construction, mining, aerospace and many more.

Material

Polyamide.

Availability

	Value	Unit
Rod diameters	6-200	mm
Tube inside diameter	on request	mm
Tube outside diameter	on request	mm
Length standard	on request	mm
Sheet thickness	2-100	mm
Sheet size	on request	mm



AE202SW - Specifications

Physical properties

	Test standard	Value	Unit
Density		1,13	g/cm ³
Thermal conductivity	Method A	0,33	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	9	%
Flammability	UL 94	HB	[-]

Mechanical properties

	Test standard	Value	Unit
Tensile strength	ISO 527	80	MPa
Hardness	ISO 868	82	SHORE-D
Yield stress	ISO 527	79	MPa
Elongation at break	ISO 527	70	%
Modulus of elasticity in tension	ISO 527	3200	MPa
Bending modulus	ISO 178	3000	MPa
Flexural strength	ISO 178	110	MPa
Charpy impact strength +23°C	ISO 179/1eU	no break	kJ/m ²
Charpy notched impact strength +23°C	ISO/1eA	6,4	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		100	°C
Intermittent working temperature		170	°C
Heat distortion temperature	Method A ISO 75	70	°C
Melting temperature	ISO 3146	220	°C
Thermal coefficient of linear expansion	DIN 53752	07-10	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	IEC 250	3,5	[-]

Electrical properties

Volume resistivity	IEC 93	10 ¹³	Ω.cm
Surface resistivity	IEC 93	10 ¹³	Ω
Resistance to tracking (CTI)		on request	