

Dispal® S221 PM

The physical and mechanical properties depend on geometry and the production process. All mechanical properties are preliminary minimal values (average minus 3 Sigma) taken from S221 PM.



Physical properties (at 20°C)

Property	Unit	Value
Density	g/cm³	2.53 ± 5%
Electrical conductivity	MS/m	11.6 ± 0.5
	%IACS	20.0 ± 0.9
Heat capacity	J/gK	0.84 ± 0.02

Coefficient of thermal expansion

Property	Unit	Value
CTE-value 20 to 100°C	10-6/K	13,5 ± 0.5
CTE-value 20 to 200°C	10-6/K	14,1 ± 0.5
CTE-value 20 to 300°C	10-6/K	14,8 ± 0.5

Thermal conductivity

Temperature (°C)	30
Value (W/mK)	138.3

Mechanical properties

Heat treatment condition F and O: (minimum values)

Property	Unit	Condition F T= 20°C	Condition O T = 20°C
Tensile strength, Rm	MPa	189	140
Yield strength, Rp0,2	MPa	149	80
Elongation, A5	%	0.5	2.0
Young's modulus, E	GPa	101	80
Hardness	HV30	106	58