

**Material datasheet**  
**Material: Vespel® SP211**

**mechanical characteristics**

Characteristic	Standard	Unit	Value
Yield stress (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	44.8
Tensile strength (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	44.8
Elongation at break (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	%	3.5
Tensile E-modulus (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	3102
Max. permissible pressure load (continuous)	Faigle	MPa (N/mm²)	11
Coefficient of sliding friction (p = 0.3N/mm² / 0.6N/mm², v = 0.27m/s, against steel hardened and ground, dry)			0.1

**thermal characteristics**

Characteristic	Standard	Unit	Value
min. Operating temperature (continuous)		°C	-200
max. service temperature (continuous)		°C	300
max. service temperature (short-term)		°C	500
Coefficient of linear thermal expansion (23 - 60°C)	ISO 11359	10 <sup>-6</sup> /K	54

**combustibility characteristics**

Characteristic	Standard	Unit	Value
UL94 flammability	IEC 60695-11-10	class	V0

physical characteristics

Characteristic	Standard	Unit	Value
Density, Gross density	ISO 1183 DIN 53479 ASTM D 792	g/cm <sup>3</sup>	1.55
Moisture absorption at saturation - standard climate (23°C, 50% RF)	ISO 62 ISO 1110	%	1.2