

General

Property	Standard	Unit	Value
Density	DIN EN ISO 1183-1	g/cm ³	1.35
Water absorption	DIN EN ISO 62	%	0.0
Flammability (Thickness 3 mm / 6 mm)	UL 94	-	V0 / V0
Flammability (Thickness 3 - 10 mm)	DIN 4102	-	Not specified

Mechanical

Property	Standard	Unit	Value
Yield stress	DIN EN ISO 527	MPa	90
Elongation at break	DIN EN ISO 527	%	3
Tensile modulus of elasticity	DIN EN ISO 527	MPa	4150
Notched impact strength	DIN EN ISO 179	kJ/m ²	Not specified
Shore hardness	DIN EN ISO 868	Scale D	88

Electrical

Property	Standard	Unit	Value
Dielectric constant	IEC 60250	-	Not specified
Dielectric dissipation factor (10 ⁶ Hz)	IEC 60250	-	Not specified
Volume resistivity	DIN EN 62631-3-1	Ω·cm	10 ¹³
Surface resistivity	DIN EN 62631-3-2	Ω	10 ¹⁵
Dielectric strength	IEC 60243	kV/mm	Not specified

Thermal

Property	Standard	Unit	Value
Melting temperature	ISO 11357-3	°C	285
Thermal conductivity	DIN 52612-1	W/(m·K)	Not specified
Specific heat capacity	DIN 52612	kJ/(kg·K)	Not specified
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ /K	Not specified
Service temperature, long term	Average	°C	-20 ... 220
Service temperature, short term (max.)	Average	°C	260
Heat deflection temperature (HDT)	DIN EN ISO 75, method A	°C	110
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	Not specified

Temperature Range

Temperature	Unit	Value
Minimum Operating Temperature	°C	-20
Maximum Operating Temperature, long term	°C	+220
Maximum Operating Temperature, short term	°C	+260

Provisional reference datasheet. Values are guideline values for unfilled PPS taken from the manufacturer datasheet Röchling Sustatron® PPS natural (Technical Data Sheet, version 2.0, release 06/06/2024). The exact CutWise supplier grade has not yet been confirmed. "Not specified": no value is published for this grade; the test method is shown for reference only. Long-term service temperature: exposure of at least 5,000 h causing a 50 % loss of tensile strength (thermal-oxidative ageing); it says nothing about mechanical strength at that temperature. Short-term maximum: a few hours at very low mechanical stress only. Electrical values refer to natural, dry material. Values are not guaranteed and do not replace testing under application conditions.