Semi-finished products
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Semi-finished products CH/LI
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Injection moulded parts
faigle Kunststoffe GmbH
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Material datasheet
Material: PAS-PAI 5530

mechanical characteristics

Characteristic	Standard	Unit	Value
Yield stress (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	125
Tensile strength (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	125
Elongation at break (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	%	3
Tensile E-modulus (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm²)	6400
Max. permissible pressure load (continuous)	Faigle	MPa (N/mm²)	54
Charpy notched impact strength (+23°C, dry)	ISO 179 DIN 53453	kJ/m²	3.5
Charpy notched impact strength (+23°C, dry)	ISO 179/1eA	kJ/m²	3.5
Ball indentation hardness (dry)	ISO 2039-1	MPa (N/mm²)	275

thermal characteristics

Characteristic	Standard	Unit	Value
min. Operating temperature (continuous)		°C	-20
max. service temperature (continuous)		°C	250
max. service temperature (short-term)		°C	270
Heat deflection temperature HDT/A (1.8 N/mm²)	ISO 75-1/-2 DIN 53461 ASTM D 648	°C	280
Coefficient of linear thermal expansion (23 - 60°C)	ISO 11359	10^-6/K	16
Thermal conductivity (+23°C)	DIN 52612	W/(m×K)	0.36

combustibility characteristics

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

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electrical characteristics

Characteristic	Standard	Unit	Value
Dielectric constant, relative permittivity (1 MHz, dry)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150		4.2
Dielectric loss factor (1 MHz, dry)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150		0.05
Surface resistivity (dry)	DIN IEC 60093 (DIN VDE 0303-30) ASTM D 257	Ω	10^13

physical characteristics

Characteristic	Standard	Unit	Value
Density, Gross density	ISO 1183 DIN 53479 ASTM D 792	g/cm³	1.61