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Rynite® 408 BK515

THERMOPLASTIC POLYESTER RESIN

Rynite® 408 BK515 is a 30% Glass Reinforced, Toughened, Polyethylene Terephthalate

Product information

Resin Identification	PET-IGF30	ISO 1043
Part Marking Code	>PET-IGF30<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.2[DS]	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.8[DS]	%	ISO 294-4, 2577

[DS]: Derived from similar grade

Typical mechanical properties

Tensile modulus	9300	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	127	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.9	%	ISO 527-1/-2
Flexural modulus	7960	MPa	ISO 178
Charpy impact strength, 23°C	64	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	86[DS]	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	13	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	12[DS]	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	13	kJ/m²	ISO 180/1A
Poisson's ratio	0.34		

[DS]: Derived from similar grade

Thermal properties

Melting temperature, 10°C/min	250	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	60	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	215	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	237	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	15[DS]	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	85[DS]	E-6/K	ISO 11359-1/-2
RTI, electrical, 0.75mm	140	°C	UL 746B
RTI, electrical, 1.5mm	140	°C	UL 746B
RTI, electrical, 3.0mm	140	°C	UL 746B
RTI, impact, 0.75mm	140	°C	UL 746B
RTI, impact, 1.5mm	140	°C	UL 746B
RTI, impact, 3.0mm	140	°C	UL 746B
RTI, strength, 0.75mm	140	°C	UL 746B
RTI, strength, 1.5mm	140	°C	UL 746B
RTI, strength, 3.0mm	140	°C	UL 746B

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Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
UL recognition	yes		UL 94
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80	mm/min	ISO 3795 (FMVSS 302)

Electrical properties

Relative permittivity, 1MHz	3.3[DS]		IEC 62631-2-1
Dissipation factor, 1MHz	150[DS]	E-4	IEC 62631-2-1
Volume resistivity	>1E13[DS]	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14[DS]	Ohm	IEC 62631-3-2
Electric strength	33	kV/mm	IEC 60243-1
Comparative tracking index	350		IEC 60112
Electric Strength, Short Time, 1mm	31	kV/mm	IEC 60243-1
Electric Strength, Short Time, 2mm	22	kV/mm	IEC 60243-1

[DS]: Derived from similar grade

Physical/Other properties

Density	1490	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.02[1]	%
Melt Temperature Optimum	280	°C
Min. melt temperature	270	°C
Max. melt temperature	290	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	110	°C
Min. mould temperature	95	°C
Max. mould temperature	125	°C
Hold pressure range	≥80	MPa
Hold pressure time	4	s/mm
Back pressure	As low as possible	MPa
Ejection temperature	195	°C

[1]: At levels above 0.02%, strength and toughness will decrease, even though parts may not exhibit surface defects.

Characteristics

Processing	Injection Moulding
Special characteristics	Heat stabilised or stable to heat, Low Warpage

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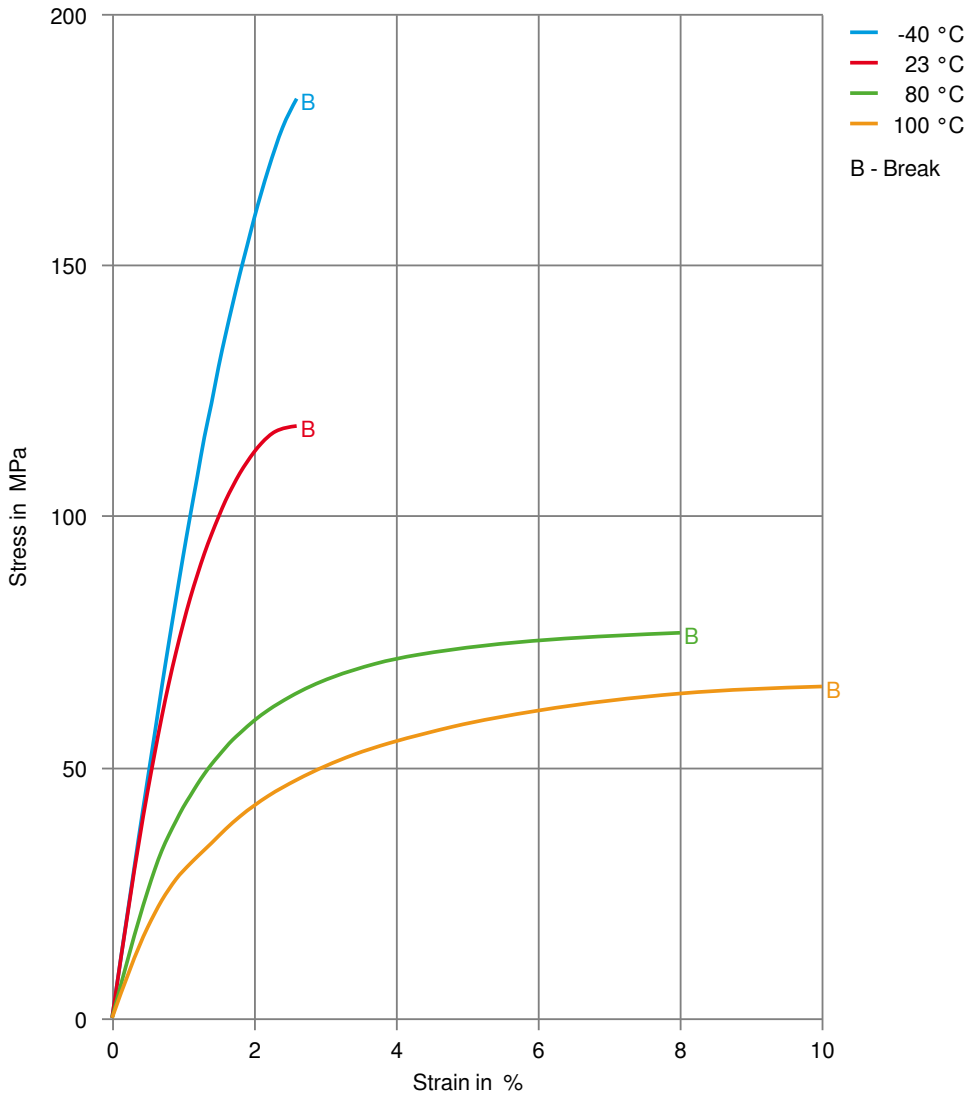
Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
BMW	GS93016-PET-GF30	(Impact Resistant)
Stellantis - Chrysler	MS.50103 / CPN-3331	Black

Stress-strain



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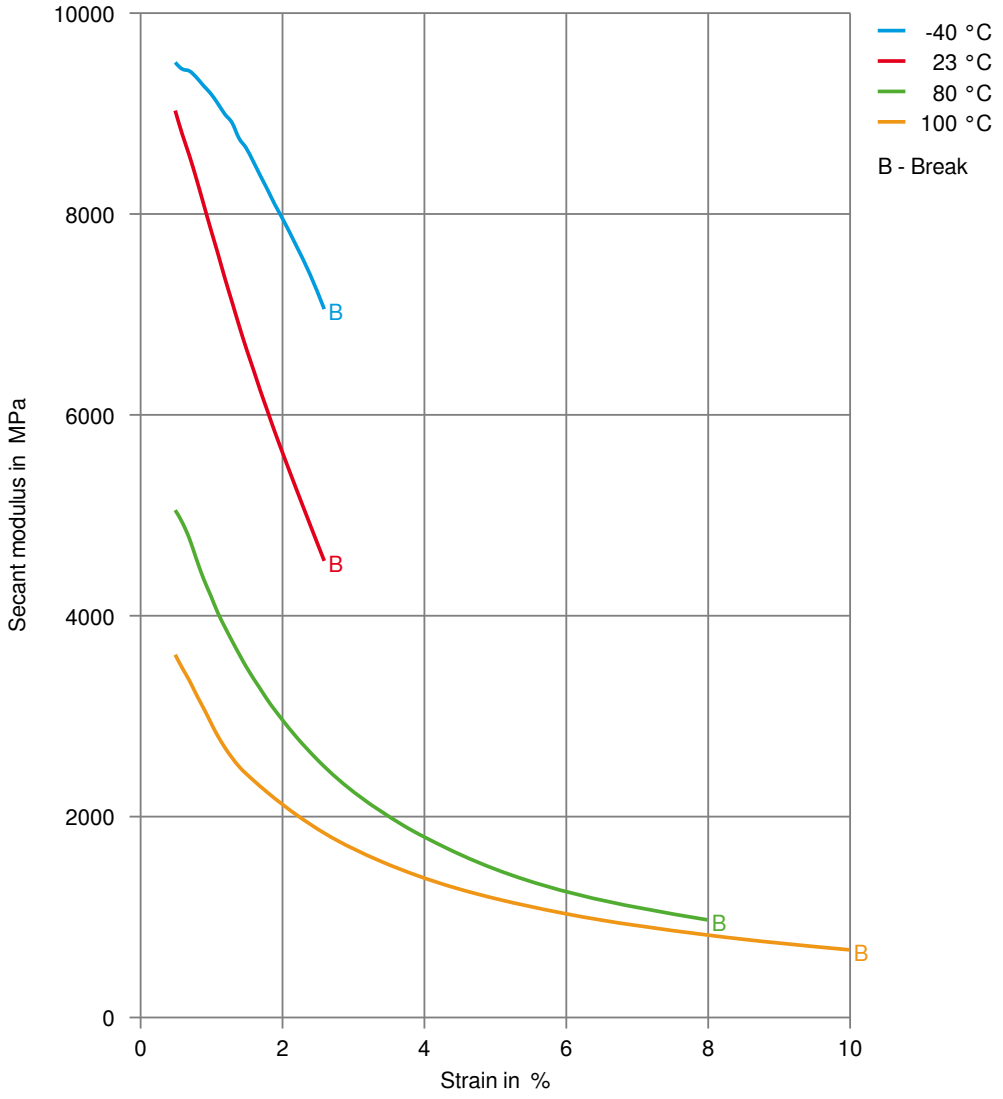
Secant modulus-strain



Revised: 2025-04-22 Source: Celanese Materials Database