Celanese
The chemistry inside innovation™

Rynite® FG530 NC011

THERMOPLASTIC POLYESTER RESIN

Rynite® FG530 NC011 is a 30% glass reinforced modified polyethylene terephthalate resin. It has been developed for consideration into applications for the food industry.

FOOD CONTACT

This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in Europe and the USA when meeting applicable use conditions. For details, individual compliance statements are available from our representative.

Product information

Resin Identification	PET-GF30		ISO 1043
Part Marking Code	>PET-GF30<		ISO 11469

Rheological properties

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

Typical mechanical properties

Tensile modulus	10500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	162	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1	%	ISO 527-1/-2
Charpy impact strength, 23°C	40	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	11	kJ/m²	ISO 179/1eA
Poisson's ratio	0.34		

Thermal properties

Melting temperature, 10°C/min	257	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	90	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	242	°C	ISO 75-1/-2

Flammability

FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80	mm/min	ISO 3795 (FMVSS 302)

Electrical properties

Comparative tracking index	250		IEC 60112

Physical/Other properties

Density	1570	kg/m³	ISO 1183

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VDA Properties

Emission of organic compounds	16	µgC/g	VDA 277
Odour	3	class	VDA 270
Fogging, G-value (condensate)	0	mg	ISO 6452

Injection

Drying Recommended	yes	
Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01[1]	%
Melt Temperature Optimum	285	°C
Min. melt temperature	280	°C
Max. melt temperature	300	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	130	°C
Min. mould temperature	120	°C
Max. mould temperature	140[2]	°C
Hold pressure range	≥80	MPa
Hold pressure time	4	s/mm
Back pressure	As low as possible	MPa
Ejection temperature	170	°C

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

[2]: (6mm - 1mm thickness)

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent

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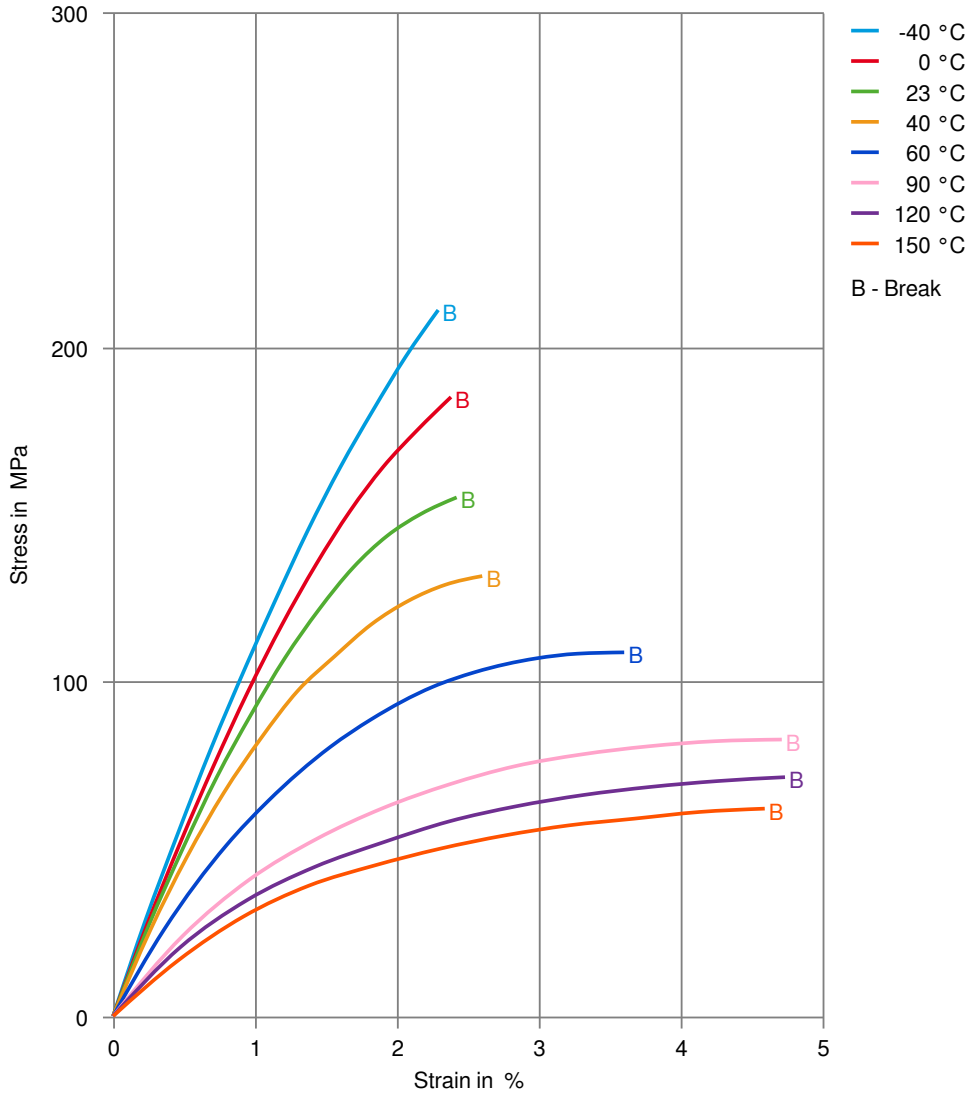
Stress-strain
(measured on Rynite® 530 NC010)



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Secant modulus-strain
(measured on Rynite® 530 NC010)