

CELCON® CF802 10/9022

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Celcon® acetal copolymer grade CF802 10/9022 is a conductive, fuel compatible acetal copolymer. Celcon® CF802 10/9022 has been developed to dissipate static electricity from fuel handling systems. Celcon® CF802 10/9022 has been specially formulated for laser welding applications. Please note Celcon® CF802 10/9022 has special processing considerations to ensure static dissipation properties. Use minimum back pressure and slowest screw speed possible in retracting screw during cooling portion of cycle. Large gate size (>2 mm) recommended. Pneumatic conveying of material long distances is not recommended. Celcon® CF802 10/9022 was formerly provided under the Hostaform® tradename.

Product information

Resin Identification	POM-MEF(x)7	ISO 1043
Part Marking Code	>POM-MEF(x)7<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	1.6 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	3000 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	62 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	10 %	ISO 527-1/-2
Tensile creep modulus, 1h	2130 MPa	ISO 899-1
Tensile creep modulus, 1000h	1050 MPa	ISO 899-1
Charpy notched impact strength, 23°C	4 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	4 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.37 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	167 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	100 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	100 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	120 E-6/K	ISO 11359-1/-2

Electrical properties

Volume resistivity	3 Ohm.m	IEC 62631-3-1
Surface resistivity	2000 Ohm	IEC 62631-3-2

Physical/Other properties

Density	1490 kg/m ³	ISO 1183
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Injection

Drying Recommended	no
Drying Temperature	100 °C
Drying Time, Dehumidified Dryer	3 - 4 h
Processing Moisture Content	≤0.2 %
Melt Temperature Optimum	190 °C

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Min. melt temperature	180 °C
Max. melt temperature	200 °C
Screw tangential speed	≤0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	120 °C
Hold pressure range	60 - 120 MPa
Back pressure	2 MPa

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Increased electrical conductivity, Static dissipative

Additional information

Processing Notes

Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

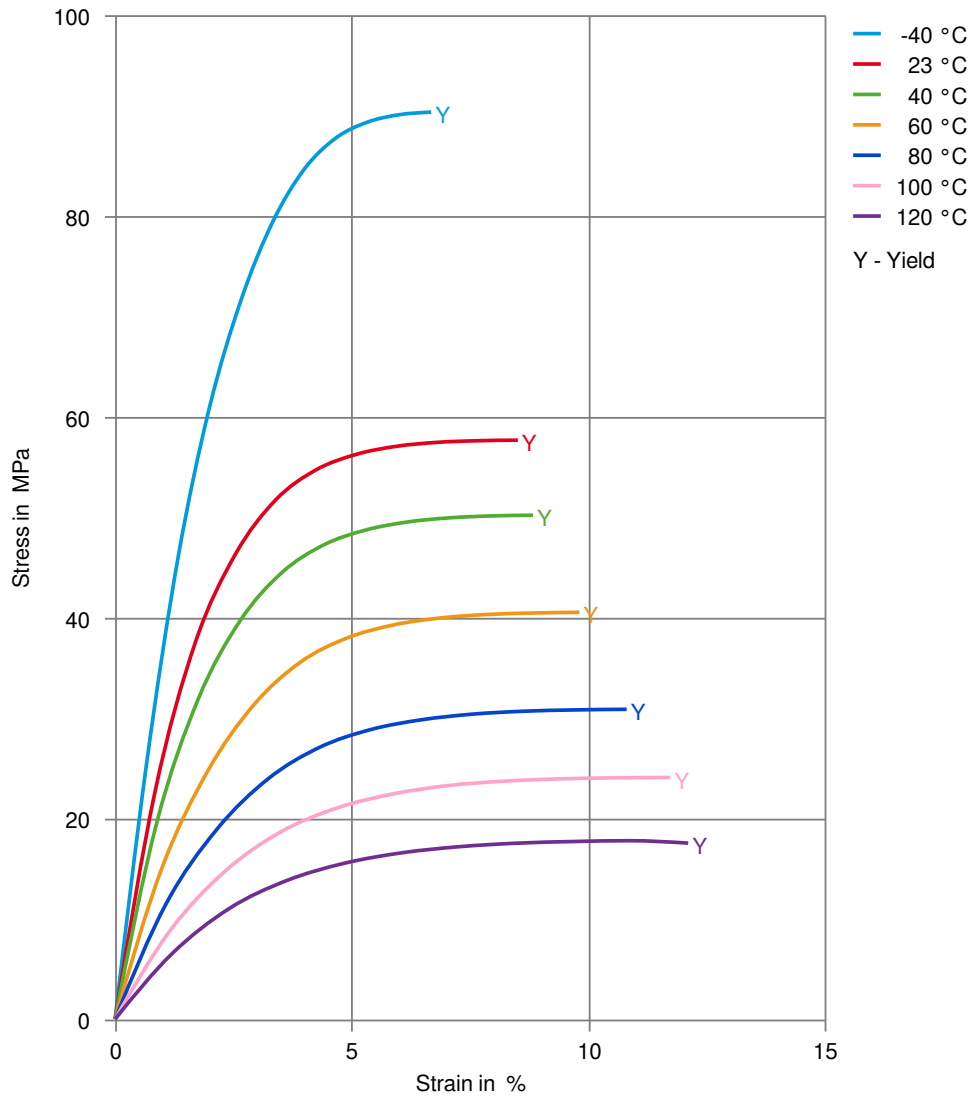
Automotive

OEM	STANDARD
BMW	GS93017

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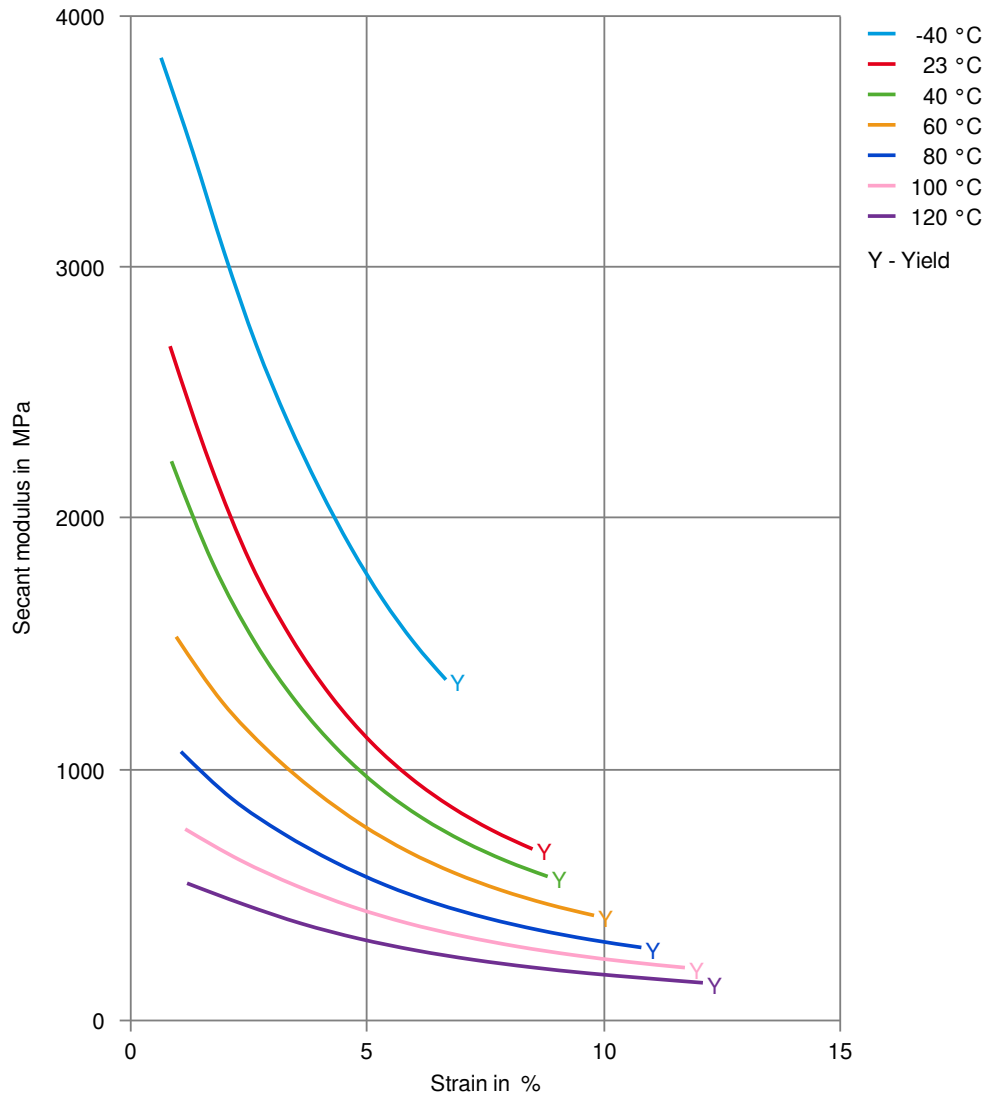
Stress-strain



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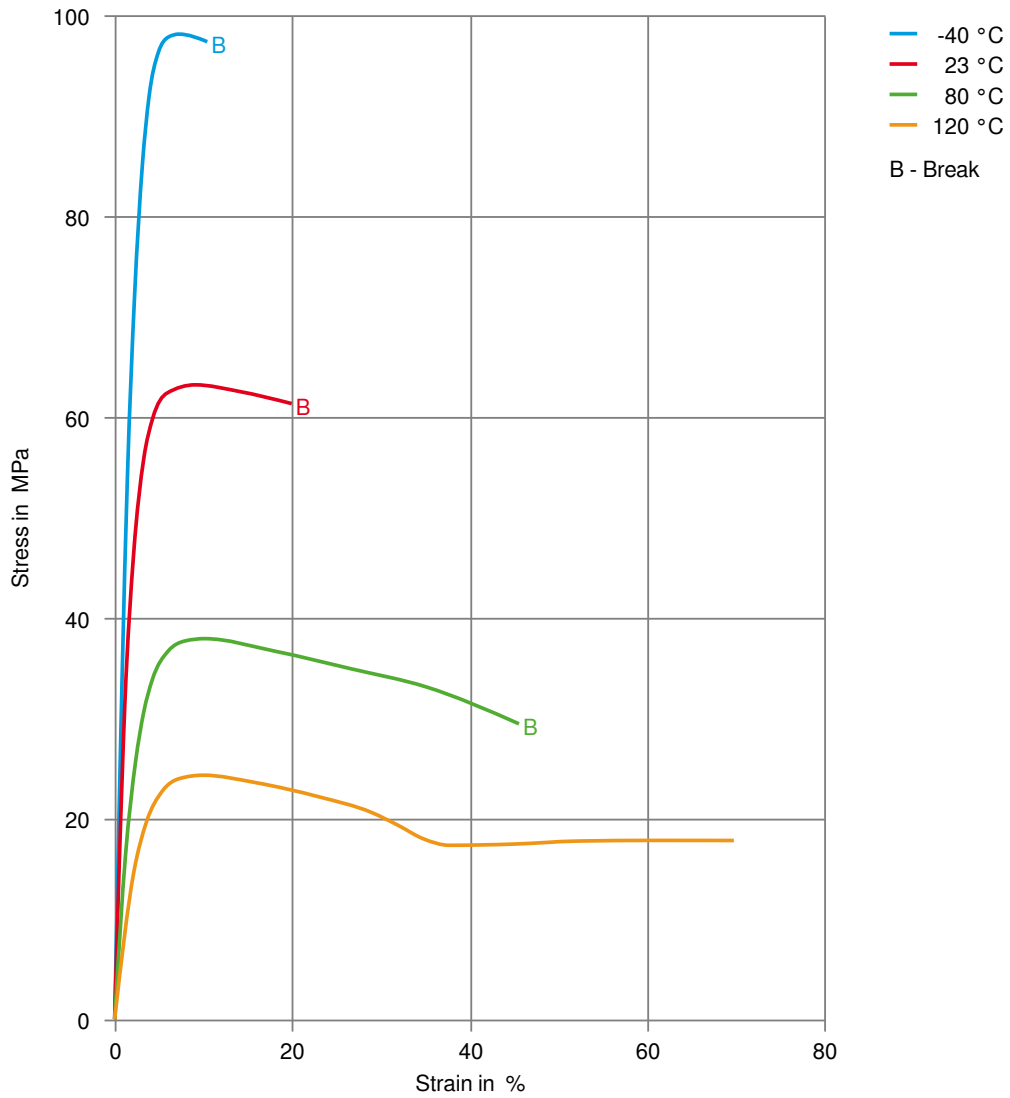
Secant modulus-strain



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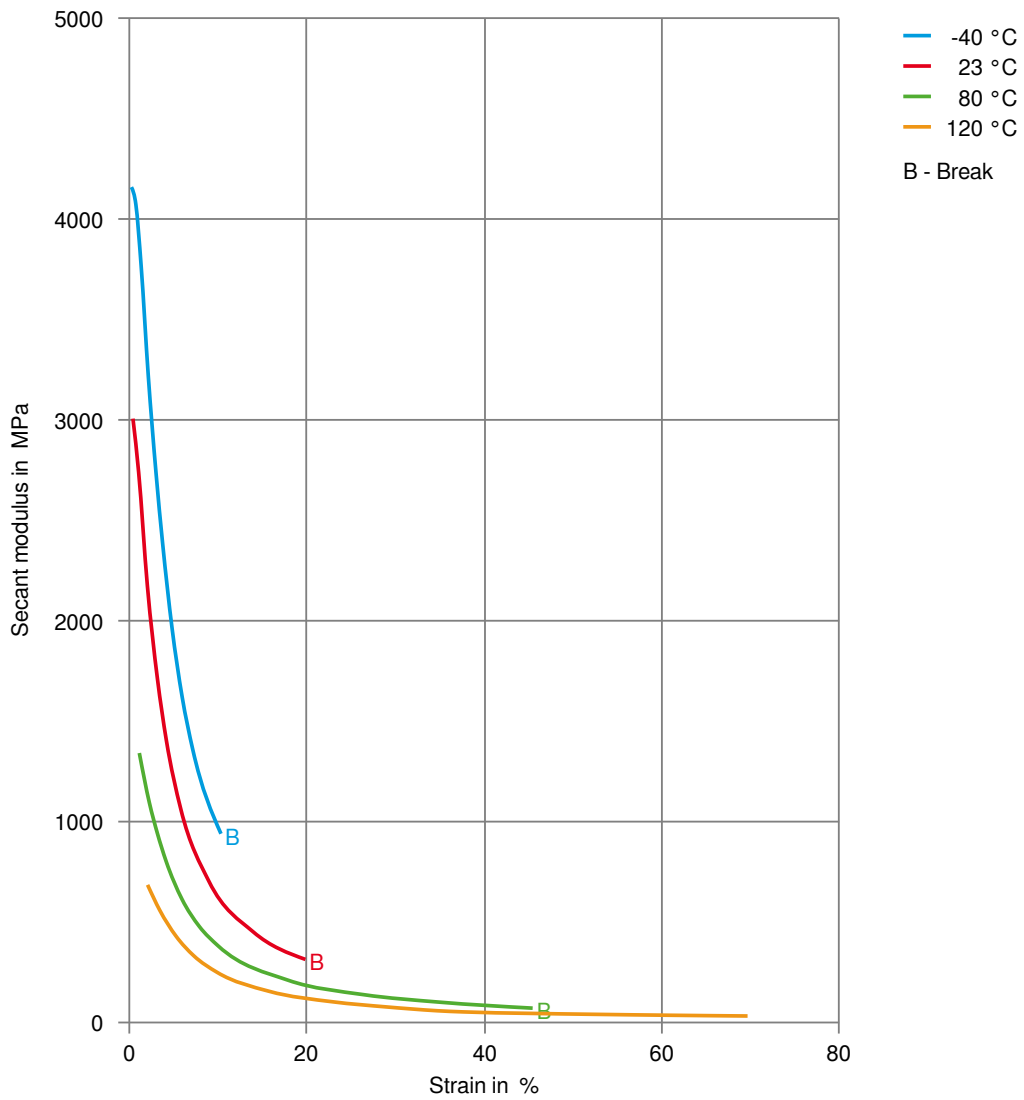
Stress-strain, 50mm/min



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Secant modulus-strain, 50mm/min



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Chemical Media Resistance

Standard Fuels

- ✓ ISO 1817 Liquid 1 - E5, 60°C
- ✓ ISO 1817 Liquid 2 - M15E4, 60°C
- ✓ ISO 1817 Liquid 3 - M3E7, 60°C
- ✓ ISO 1817 Liquid 4 - M15, 60°C
- ✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C), 23°C
- ✓ Standard fuel with alcohol (pref. ISO 1817 Liquid 4), 23°C

Symbols used:

- ✓ possibly resistant
Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).
- ✗ not recommended - see explanation
Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).