Celanese
The chemistry inside innovation™

CELCON® CF802 10/9022

ESD (electrostatic dissipative); fuel compatible; standard acetal copolymer grade
Celcon® acetal copolymer grade CF802 10/9022 is a conductive, fuel compatible general purpose 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.

Rheological properties

Moulding shrinkage range, parallel	1.7	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.6	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	3000	MPa	ISO 527-1/-2
Yield stress, 50mm/min	62	MPa	ISO 527-1/-2
Yield strain, 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/m²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	167	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	100	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	100	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, 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

Other properties

Density	1470	kg/m³	ISO 1183

Injection

Drying Temperature	100 - 120	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Max. mould temperature	80 - 120	°C
Back pressure	2	MPa
Injection speed	slow	

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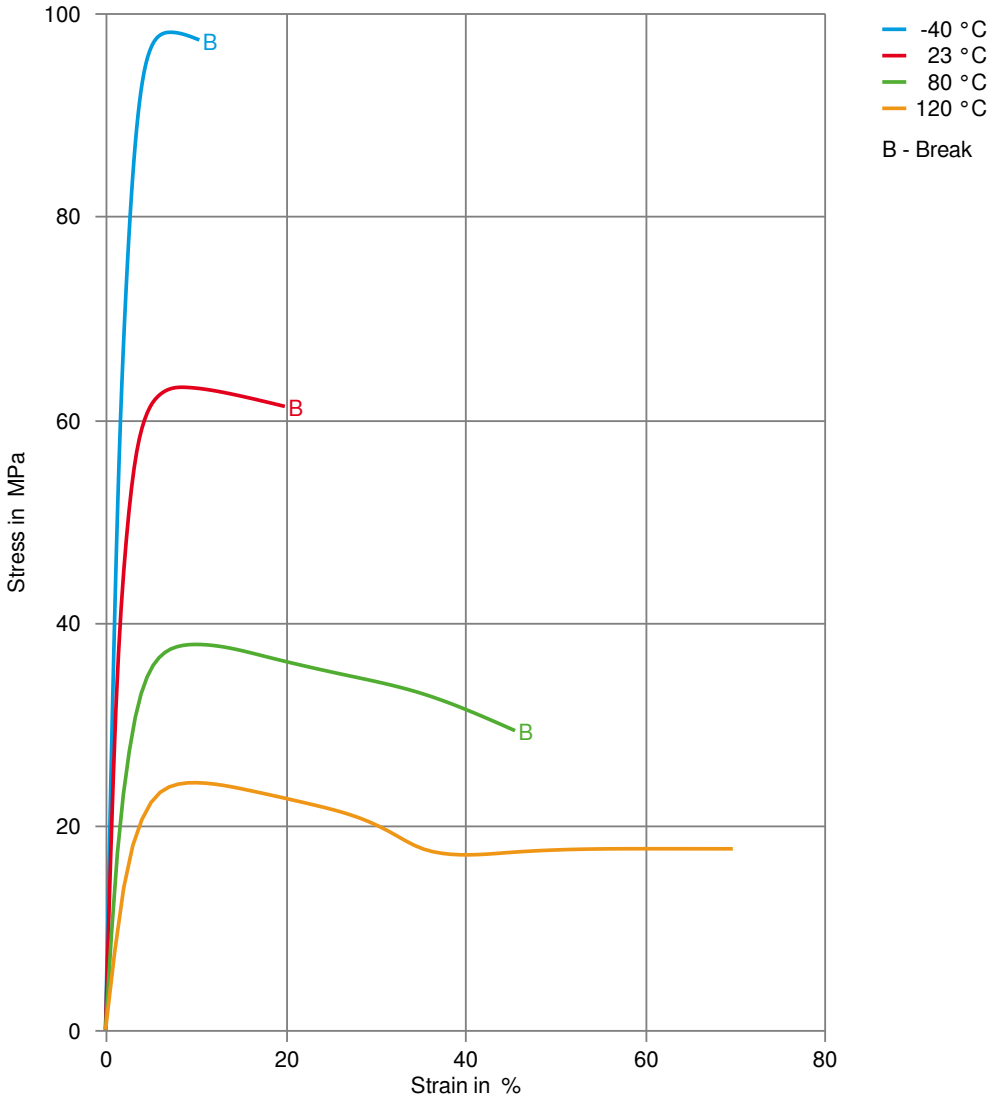
Stress-strain



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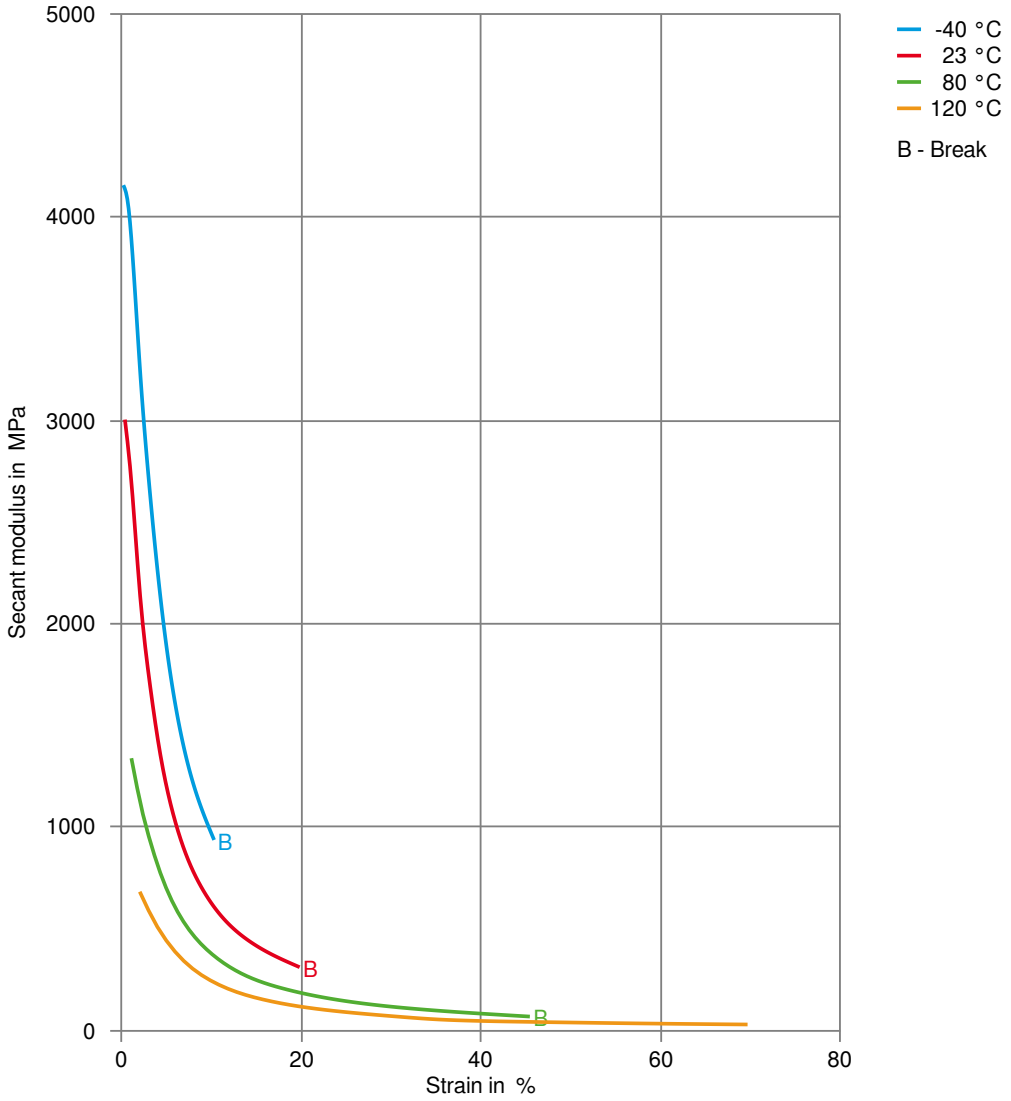
Secant modulus-strain



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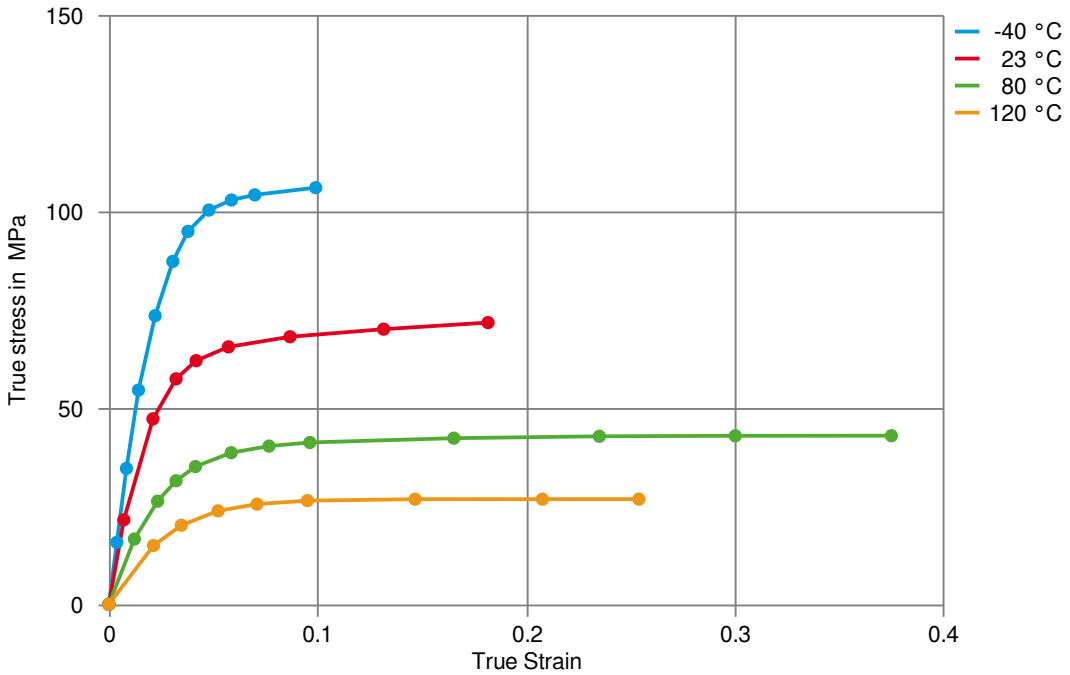
True stress-strain



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Processing Texts

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.

Other Approvals

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OEM	Specification
BMW	GS 93017

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).