

CAMPUS® Datasheet

ULTEM™ Resin 1010R - PEI
SABIC



Product Texts

ULTEM 1010R Resin is an unreinforced amorphous polyetherimide (PEI) resin that may offer a high glass transition temperature (Tg) of 217°C, improved flow and it contains internal mold release. Features are excellent mechanical, electrical and dimensional properties up to high temperatures. The material may offer very good chemical resistance for an amorphous material and is inherently flame retardant offering UL94 V0 and 5V ratings and aerospace FAR 25.853 compliance. The material is RoHS compliant. The material is available in opaque colors.

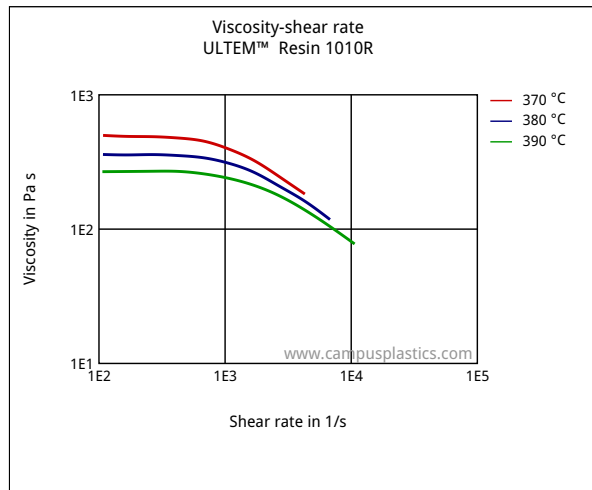
UL Yellow Card Link [F121562-101048269](https://www.ulprospector.com/121562-101048269)

Rheological properties	Value	Unit	Test Standard
Melt volume-flow rate, MVR	25	cm ³ /10min	ISO 1133
Temperature	360	°C	ISO 1133
Load	5	kg	ISO 1133
Mechanical properties	Value	Unit	Test Standard
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
Thermal properties	Value	Unit	Test Standard
Temp. of deflection under load, 1.80 MPa	192	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	209	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	211	°C	ISO 306
Burning behavior at thickness h	V-2	class	IEC 60695-11-10
Thickness tested (h)	0.4	mm	IEC 60695-11-10
Burning behavior 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.0	mm	IEC 60695-11-20
Electrical properties	Value	Unit	Test Standard
Relative permittivity, 1MHz	2.9	-	IEC 62631-2-1
Dissipation factor, 1MHz	60	E-4	IEC 62631-2-1
Volume resistivity	1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	1E15	Ohm	IEC 62631-3-2
Electric strength	33	kV/mm	IEC 60243-1
Comparative tracking index	150	-	IEC 60112
Other properties	Value	Unit	Test Standard
Water absorption	1.25	%	Sim. to ISO 62
Density	1270	kg/m ³	ISO 1183

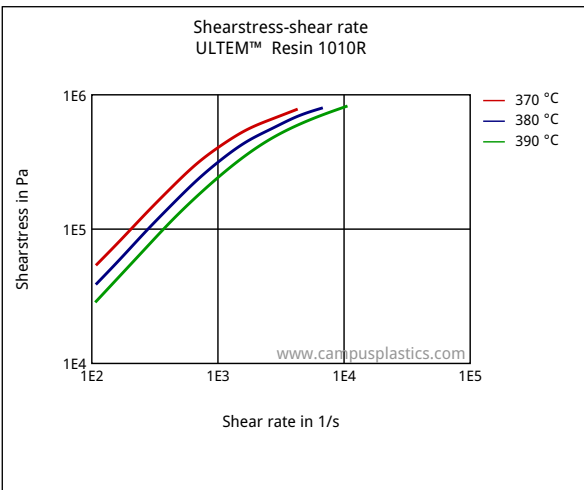
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Diagrams

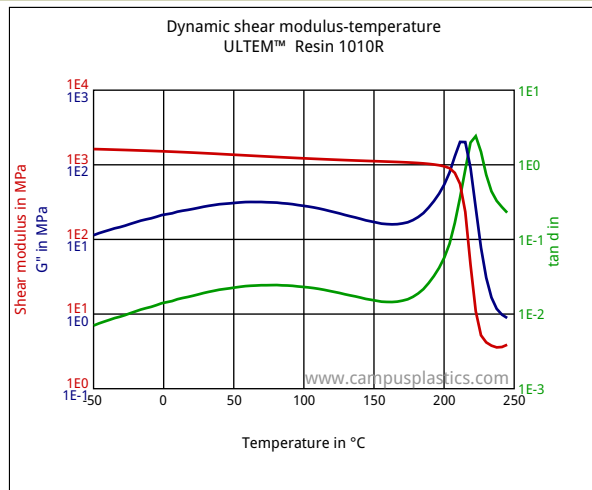
Viscosity-shear rate



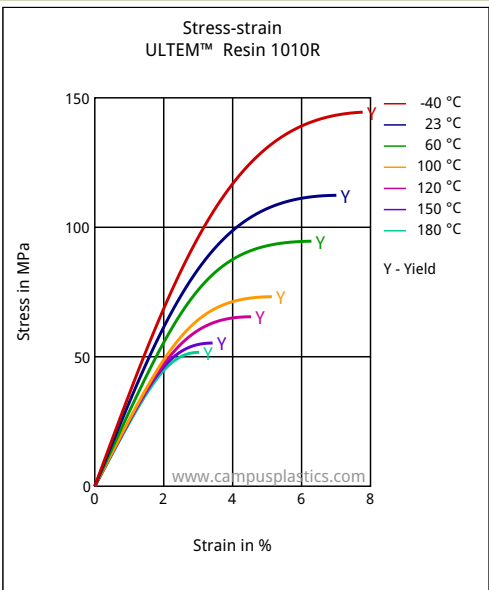
Shearstress-shear rate



Dynamic shear modulus-temperature

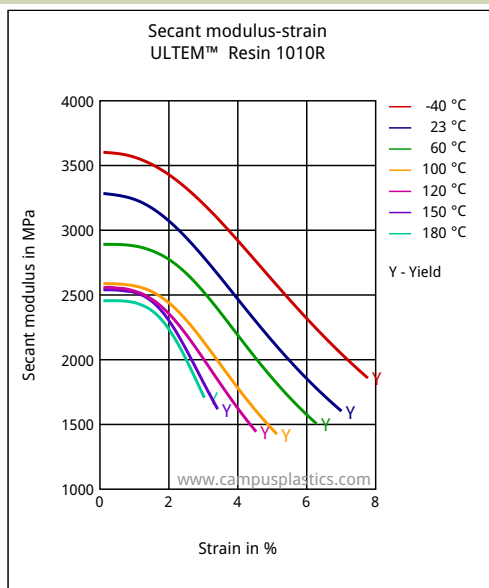


Stress-strain

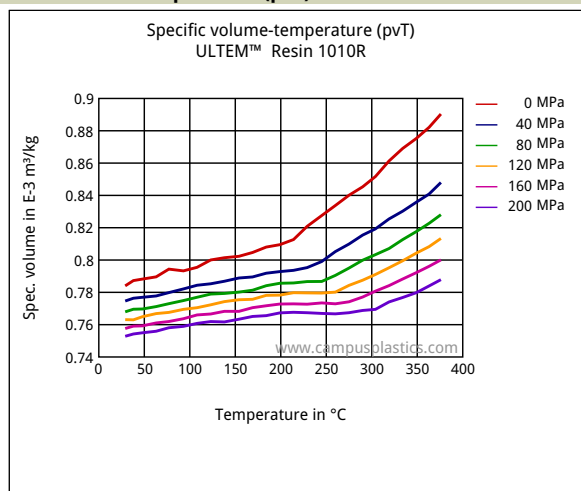


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Secant modulus-strain



Specific volume-temperature (pvT)



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