This datasheet of **Akulon® F-X9190** from **Envalior** is provided by the international plastics database **CAMPUS**.

Akulon® F-X9190 | PA6 | Envalior

Product Texts

Low/Medium Viscosity

ISO 1043 PA6

Rheological properties	dry / cond	Unit
Molding shrinkage, parallel	**1.1 / ***	%
Molding shrinkage, normal	**1.1 / ***	%

Mechanical properties	dry / cond	Unit
Tensile modulus	**3200 / 1000**	MPa
Yield stress	**87 / 45**	MPa
Yield strain	**4 / 25**	%
Nominal strain at break	**20 / >50**	%
Charpy impact strength, +23°C	**N / N**	kJ/m²
Charpy impact strength, -30°C	**N / N**	kJ/m²
Charpy notched impact strength, +23°C	**5 / 35**	kJ/m²
Charpy notched impact strength, -30°C	**3 / 5**	kJ/m²

Thermal properties	dry / cond	Unit
Melting temperature, 10°C/min	**220 / ***	°C
Temp. of deflection under load, 1.80 MPa	**60 / ***	°C
Temp. of deflection under load, 0.45 MPa	**150 / ***	°C
Coeff. of linear therm. expansion, parallel	**90 / ***	E-6/K
Coeff. of linear therm. expansion, normal	**100 / ***	E-6/K
Burning behavior at 1.5 mm nominal thickness	**V-2 / ***	class
Thickness tested (1.5)	**1.5 / ***	mm
Yellow Card available	**Yes / ***	-
Burning behavior at thickness h	**V-2 / ***	class
Thickness tested (h)	**3.0 / ***	mm

Yellow Card available	**Yes / ***	-
Oxygen index	**26 / ***	%

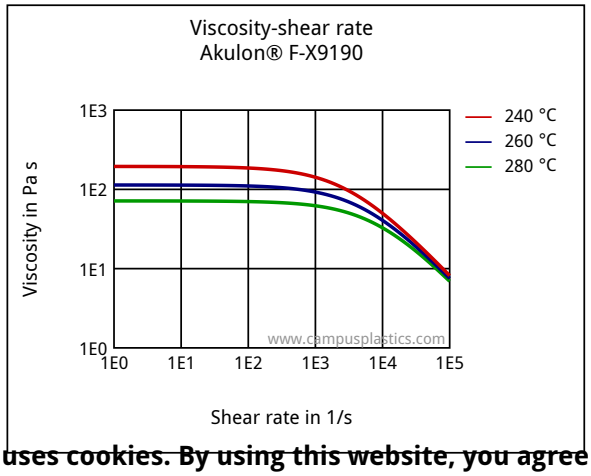
Electrical properties	**dry / cond**	**Unit**
Relative permittivity, 100Hz	**3.4 / 15**	-
Relative permittivity, 1MHz	**3.1 / 4.7**	-
Dissipation factor, 100Hz	**65 / 3900**	E-4
Dissipation factor, 1MHz	**165 / 1300**	E-4
Volume resistivity	**1E13 / 1E10**	Ohm*m
Surface resistivity	*** / 1E14**	Ohm
Electric strength	**30 / 20**	kV/mm
Comparative tracking index	*** / 600**	-

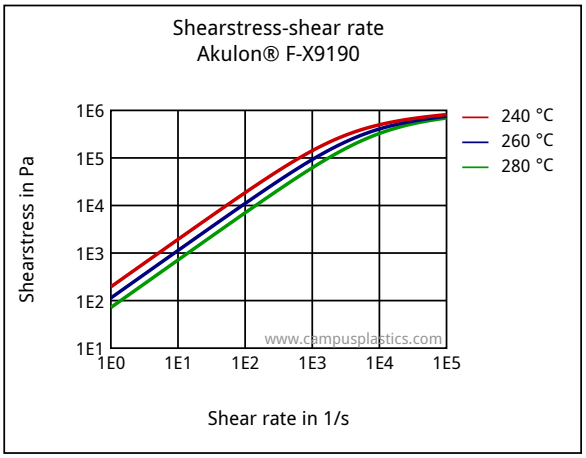
Other properties	**dry / cond**	**Unit**
Water absorption	**10 / ***	%
Humidity absorption	**2.8 / ***	%
Density	**1130 / -**	kg/m³

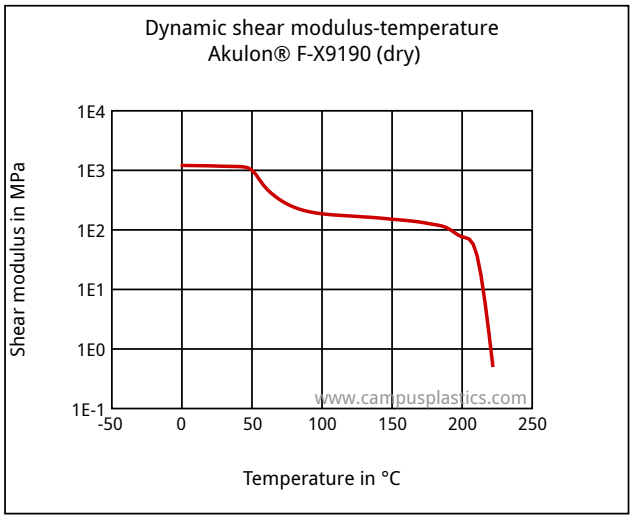
Material specific properties	**dry / cond**	**Unit**
Viscosity number	**129 / ***	cm³/g

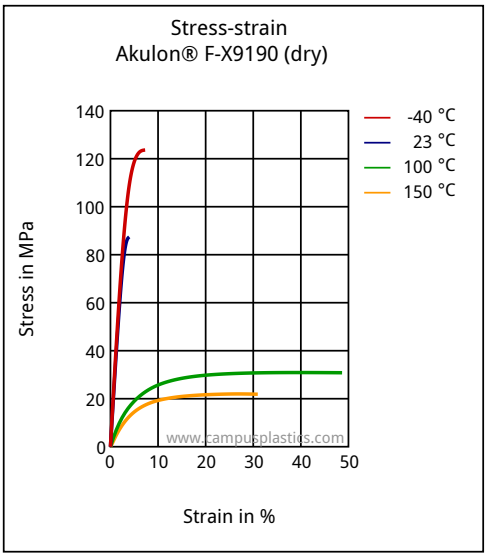
Rheological calculation properties	**Value**	**Unit**
Density of melt	**960**	kg/m³
Thermal conductivity of melt	**0.23**	W/(m K)
Spec. heat capacity melt	**2680**	J/(kg K)
Eff. thermal diffusivity	**8.82E-8**	m²/s

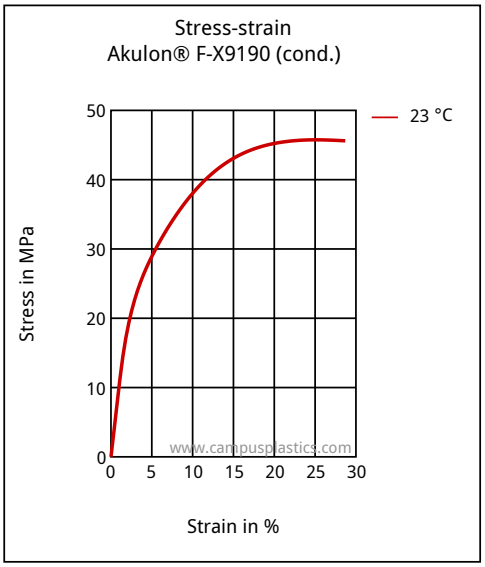
Diagrams

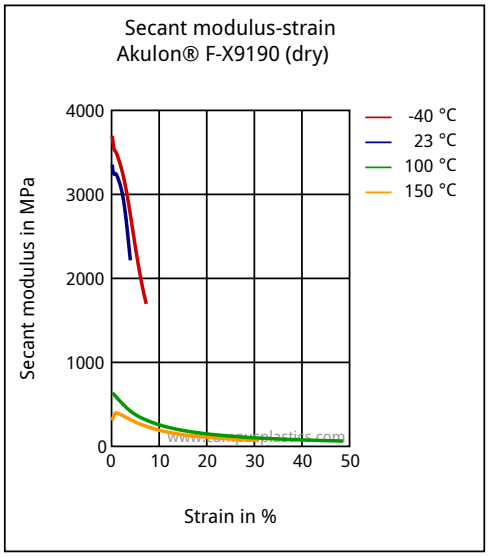


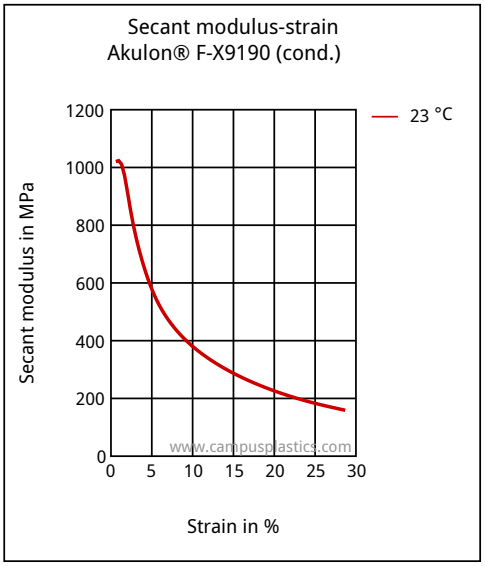


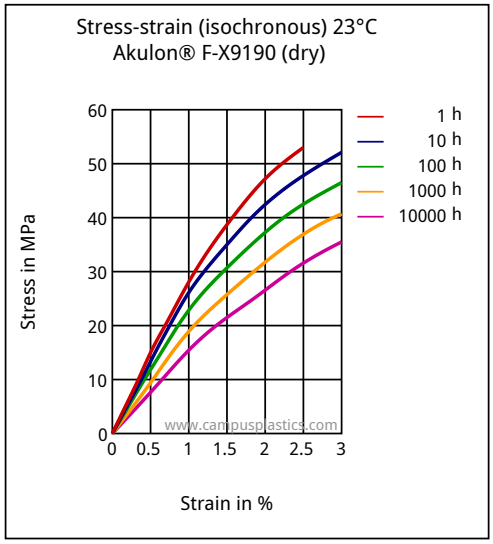


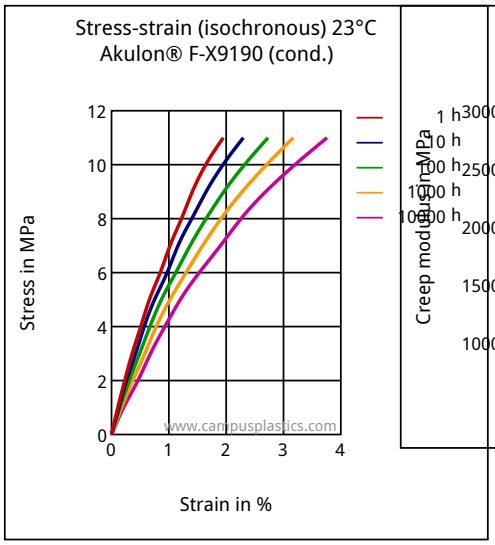


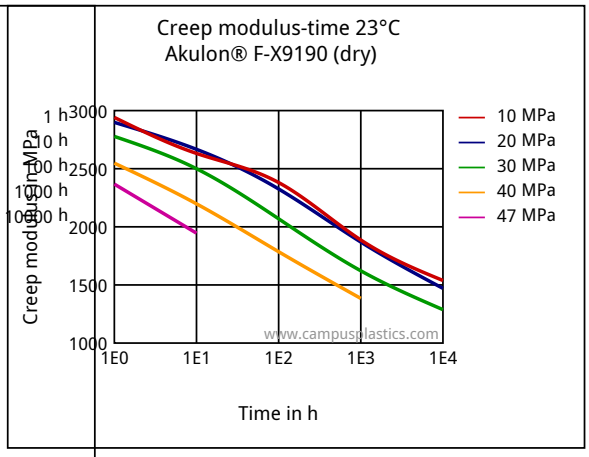


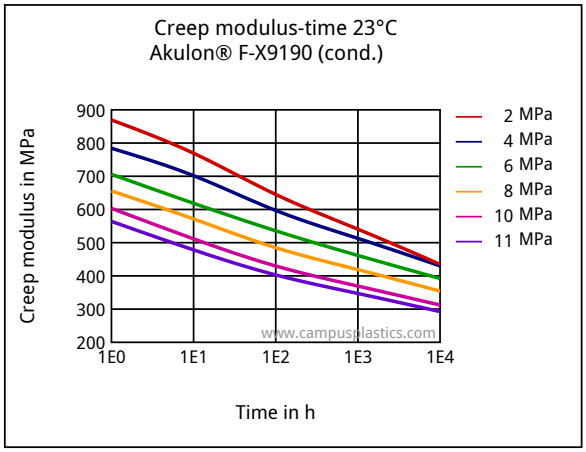


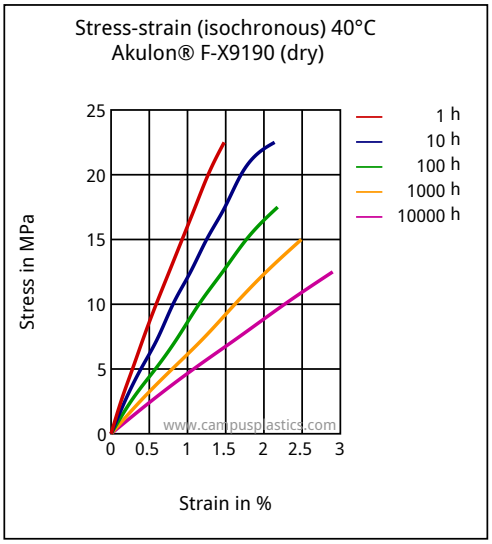


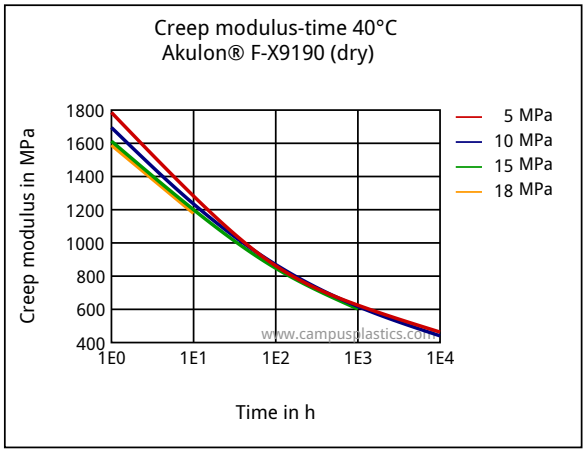


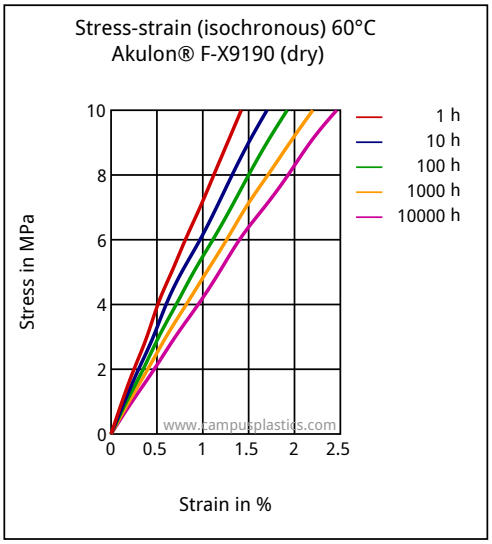


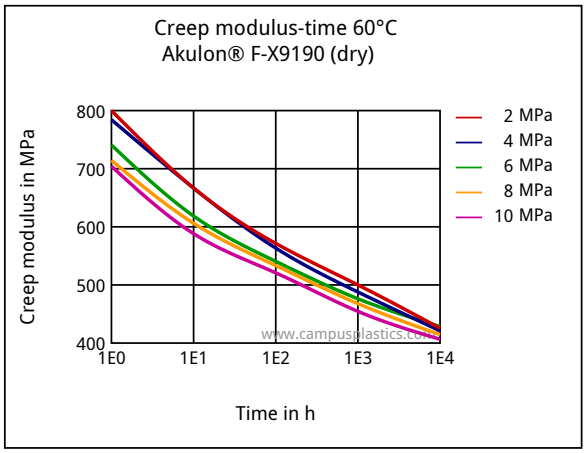


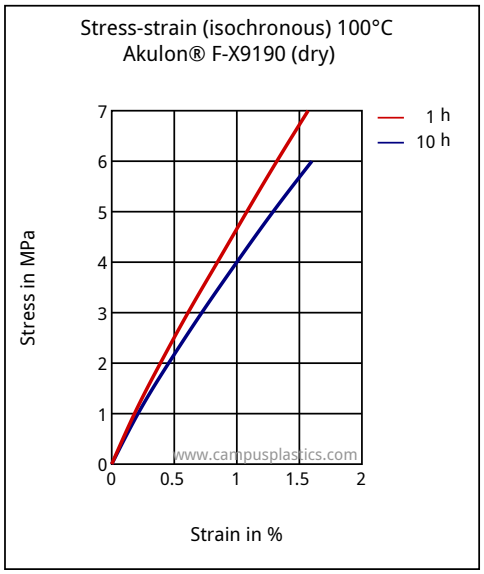


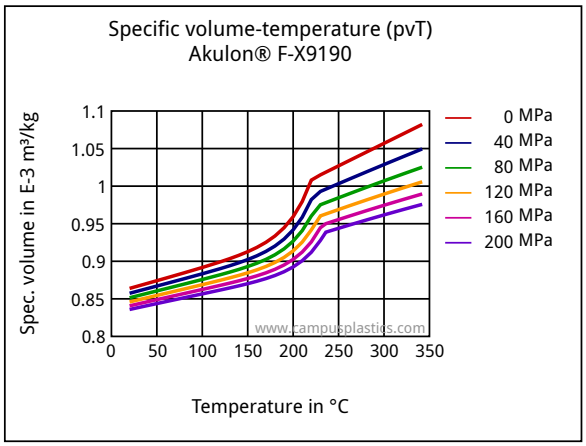












Characteristics

Processing
Injection Molding

Delivery form
Pellets

Regional Availability
Asia Pacific

Other text information

Injection molding

Injection Molding Recommendations
Steel recommendations for molds screws and barrels
Trouble shooting guideline for injection molding

Chemical Media Resistance

Alcohols

Methanol (23°C)

Ethanol (23°C)

Hydrocarbons

Toluene (23°C)

Ketones

Acetone (23°C)

Ethers

Diethyl ether (23°C)

Other

Ethyl Acetate (23°C)

Water (23°C)