



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

<b>Rheological properties</b>	<b>dry / cond</b>	<b>Unit</b>
Molding shrinkage, parallel	<b>1.1 / *</b>	%
Molding shrinkage, normal	<b>1.1 / *</b>	%
<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>
Tensile modulus	<b>3200 / 1000</b>	MPa
Yield stress	<b>87 / 45</b>	MPa
Yield strain	<b>4 / 25</b>	%
Nominal strain at break	<b>20 / &gt;50</b>	%
Charpy impact strength, +23°C	<b>N / N</b>	kJ/m <sup>2</sup>
Charpy impact strength, -30°C	<b>N / N</b>	kJ/m <sup>2</sup>
Charpy notched impact strength, +23°C	<b>5 / 35</b>	kJ/m <sup>2</sup>
Charpy notched impact strength, -30°C	<b>3 / 5</b>	kJ/m <sup>2</sup>
<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>
Melting temperature, 10°C/min	<b>220 / *</b>	°C
Temp. of deflection under load, 1.80 MPa	<b>60 / *</b>	°C
Temp. of deflection under load, 0.45 MPa	<b>150 / *</b>	°C
Coeff. of linear therm. expansion, parallel	<b>90 / *</b>	E-6/K
Coeff. of linear therm. expansion, normal	<b>100 / *</b>	E-6/K
Burning behavior at 1.5 mm nominal thickness	<b>V-2 / *</b>	class
Thickness tested (1.5)	<b>1.5 / *</b>	mm
Yellow Card available	<b>Yes / *</b>	-
Burning behavior at thickness h	<b>V-2 / *</b>	class
Thickness tested (h)	<b>3.07 / *</b>	mm

Yellow Card available

Oxygen index

### Electrical properties

Relative permittivity, 100Hz

Relative permittivity, 1MHz

Dissipation factor, 100Hz

Dissipation factor, 1MHz

Volume resistivity

Surface resistivity

Electric strength

Comparative tracking index

### Other properties

Water absorption

Humidity absorption

Density

### Material specific properties

Viscosity number

### Rheological calculation properties

Density of melt

Thermal conductivity of melt

Spec. heat capacity melt

Eff. thermal diffusivity

Yes / \*

-

26 / \*

%

dry / cond Unit

3.4 / 15

-

3.1 / 4.7

-

65 / 3900

E-4

165 / 1300

E-4

1E13 / 1E10

Ohm\*m

\* / 1E14

Ohm

30 / 20

kV/mm

\* / 600

-

dry / cond Unit

10 / \*

%

2.8 / \*

%

1130 / -

kg/m<sup>3</sup>

dry / cond Unit

129 / \*

cm<sup>3</sup>/g

Value Unit

960

kg/m<sup>3</sup>

0.23

W/(m K)

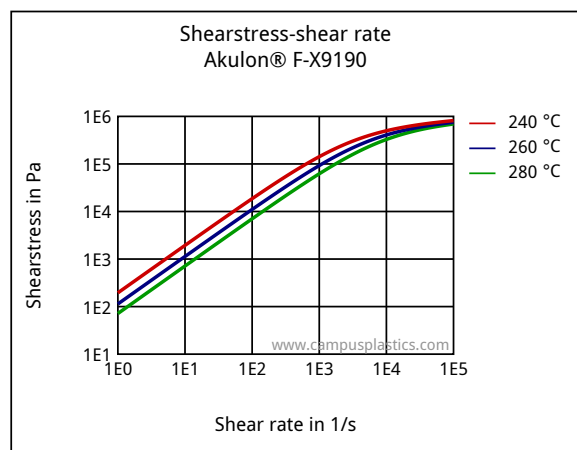
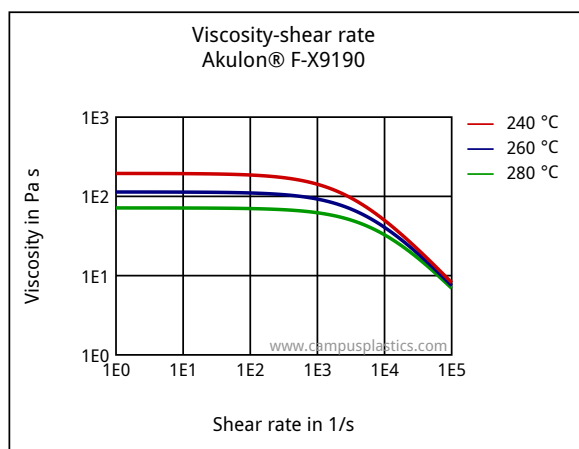
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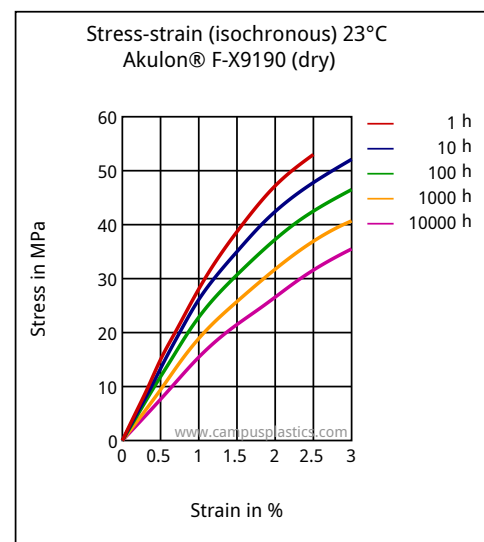
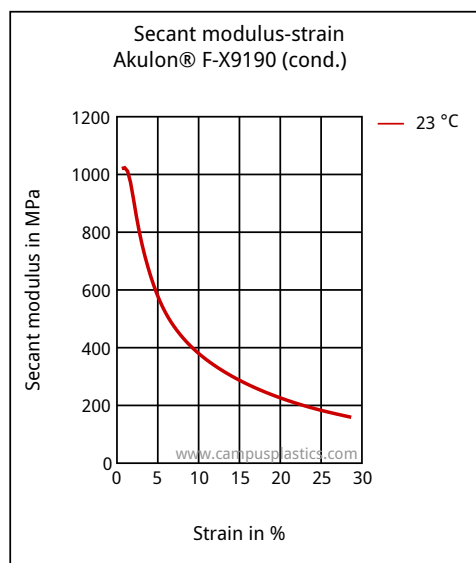
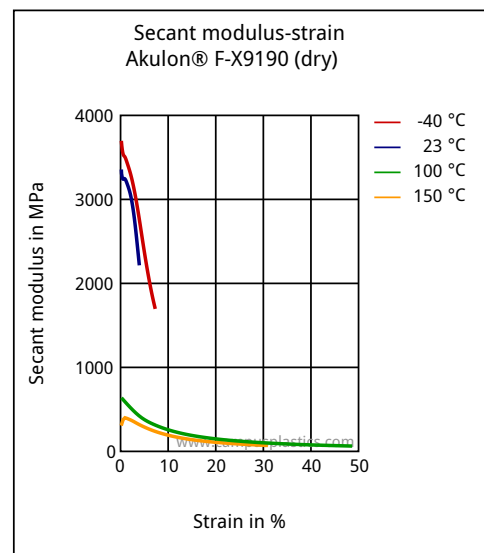
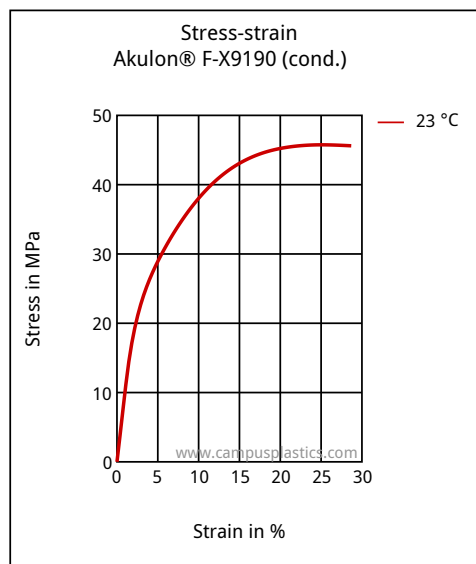
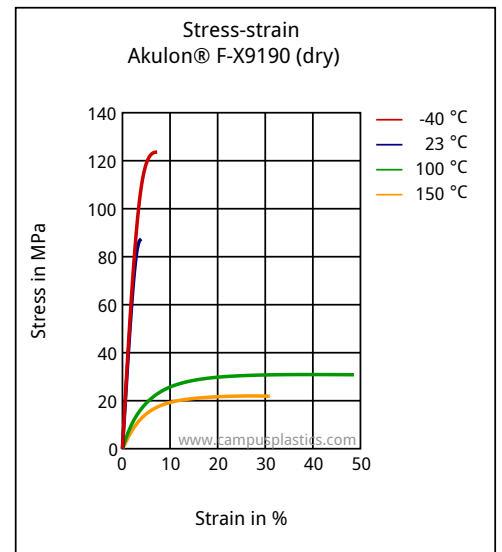
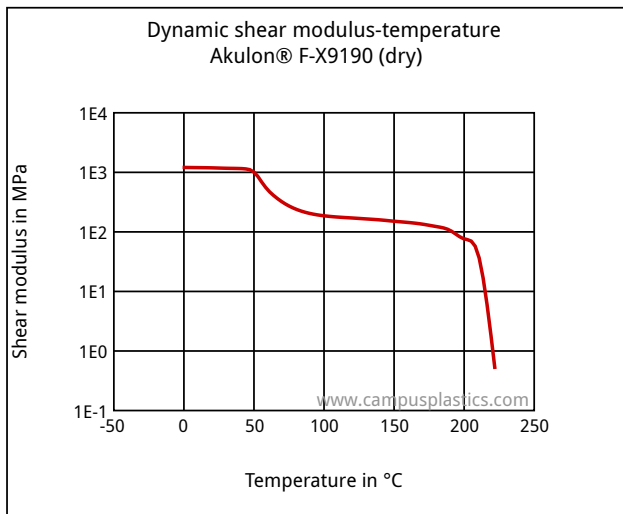
J/(kg K)

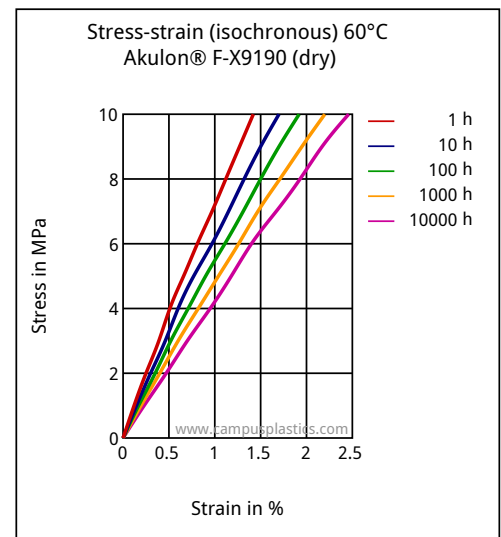
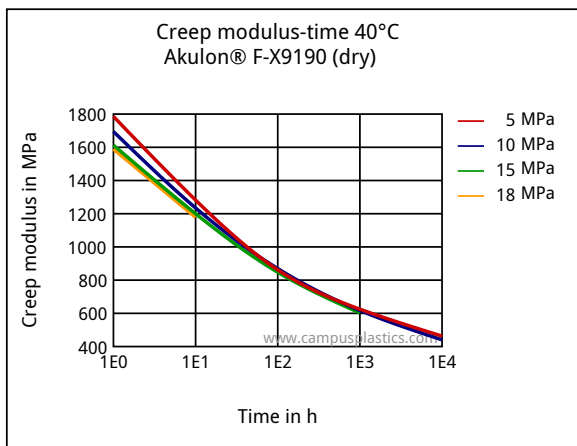
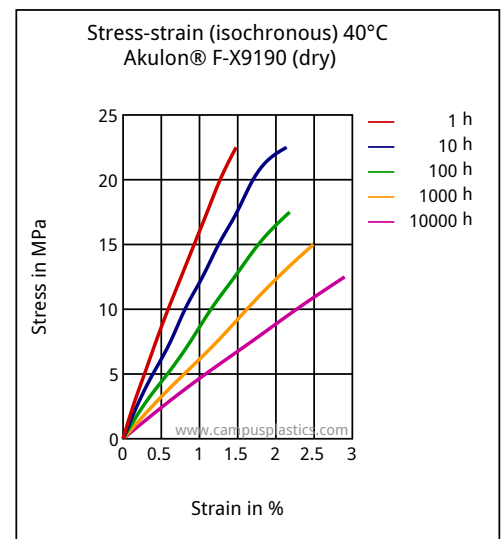
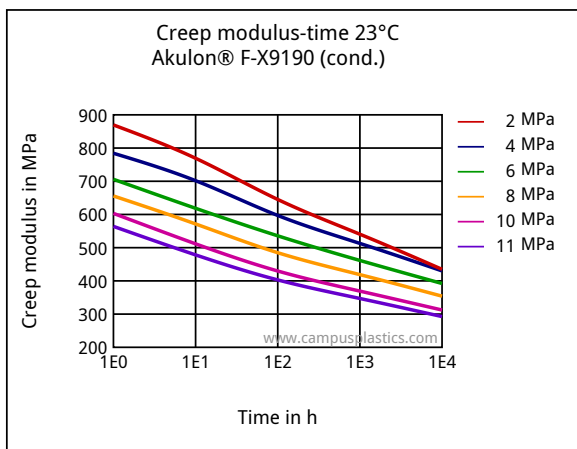
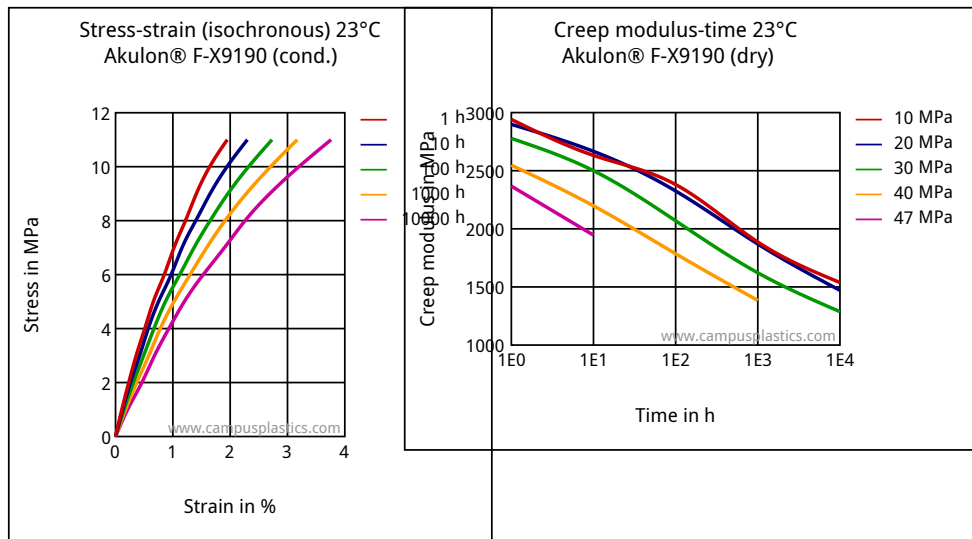
8.82E-8

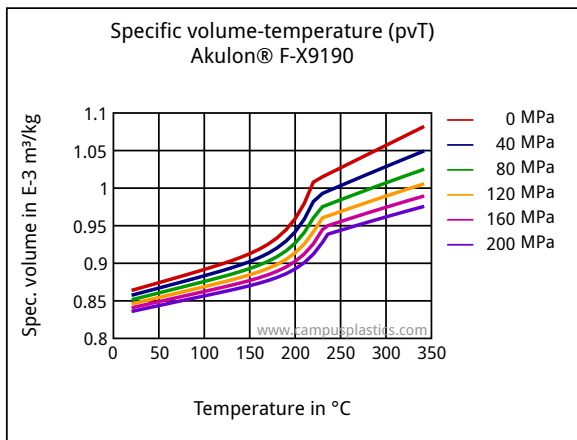
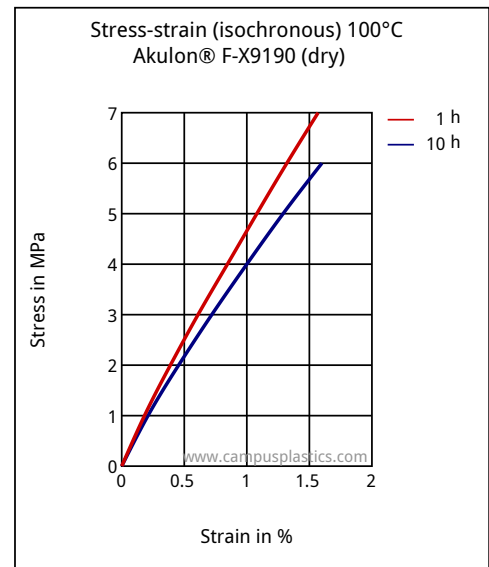
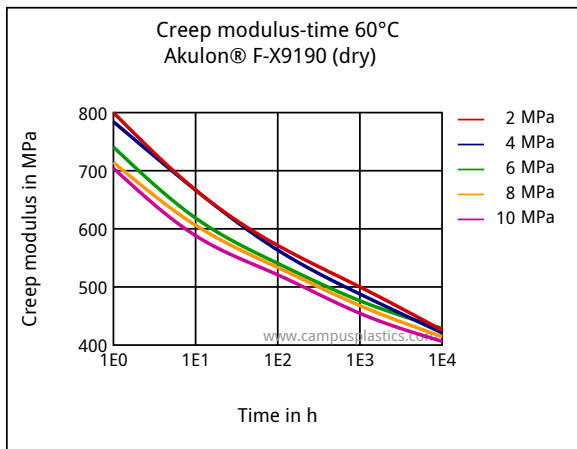
m<sup>2</sup>/s

### 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)

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## Hydrocarbons

Toluene (23°C)

## Ketones

Acetone (23°C)

## Ethers

Diethyl ether (23°C)

## Other

Ethyl Acetate (23°C)

Water (23°C)

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