



This datasheet of **Akulon® F223-D** from **Envalior** is provided by the international plastics database **CAMPUS**.

## Akulon® F223-D | PA6 | Envalior

### Product Texts

Low/Medium Viscosity, General purpose, Injection Molding, Food Contact Quality

ISO 1043 PA6

### Rheological properties

	dry / cond	Unit
Melt volume-flow rate, MVR	44 / *	cm³/10min
Temperature	260 / *	°C
Load	2.16 / *	kg
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	4.5 / 35	kJ/m²
Charpy notched impact strength, -30°C	2.5 / 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
Vicat softening temperature, 50°C/h 50N	195 / *	°C
Coeff. of linear therm. expansion, parallel	90 / *	E-6/K
Coeff. of linear therm. expansion, normal	90 / *	E-6/K

**This website uses cookies. By using this website, you agree to the use of cookies.**

Burning behavior at 1.5 mm nominal thickness

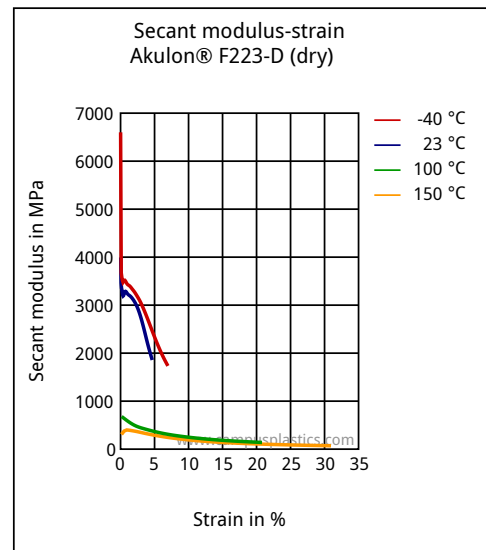
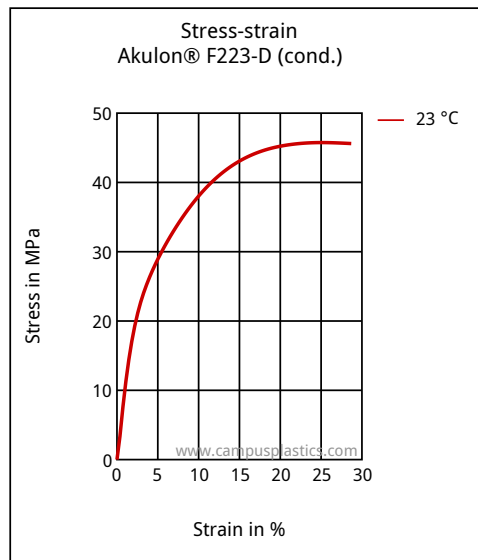
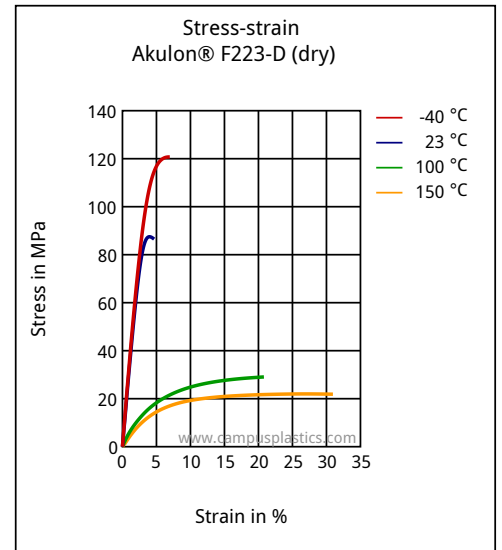
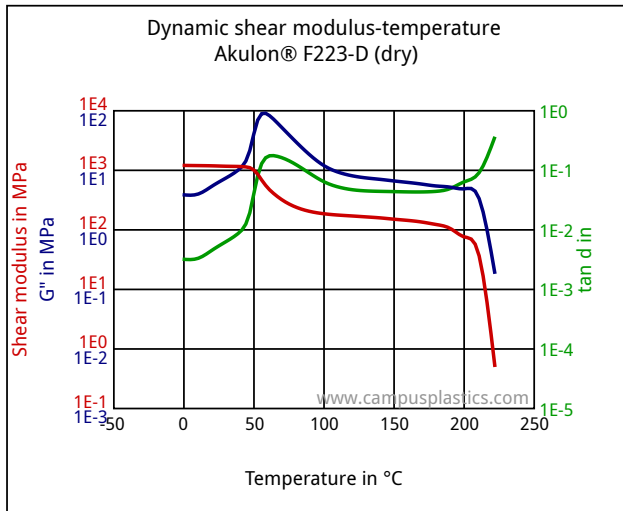
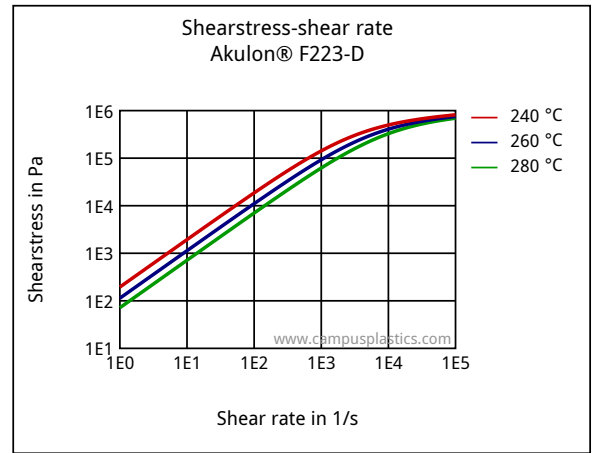
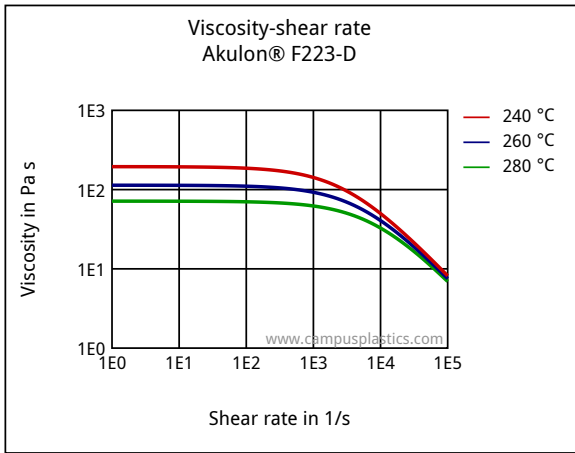
V-2 / \* Class

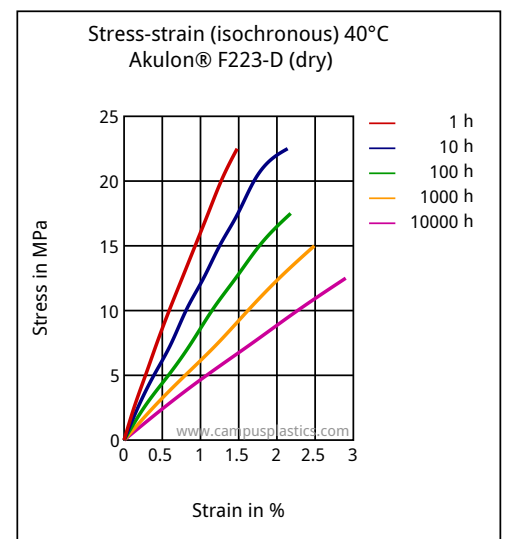
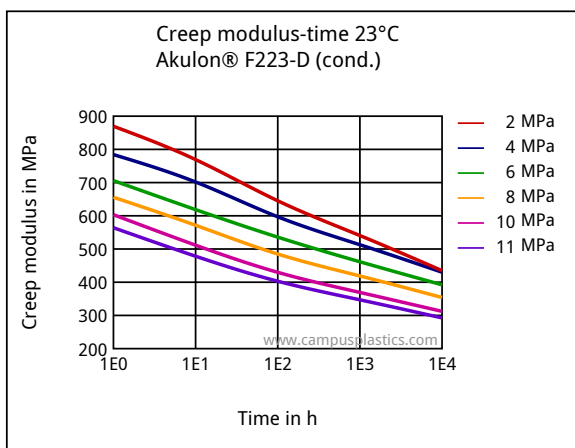
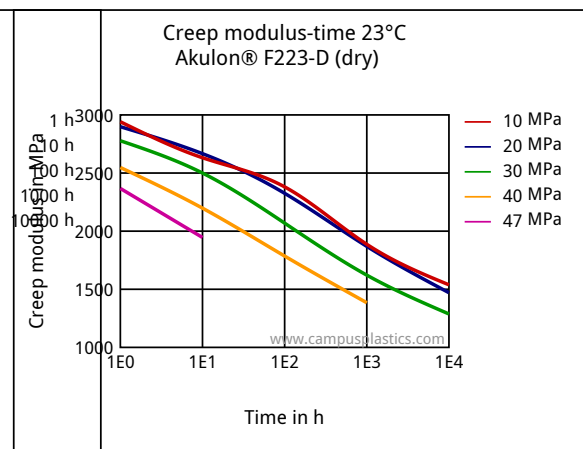
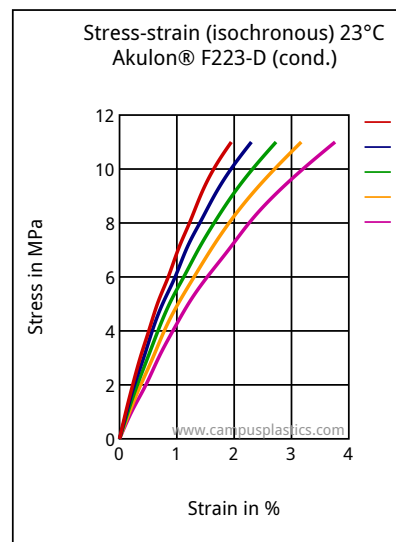
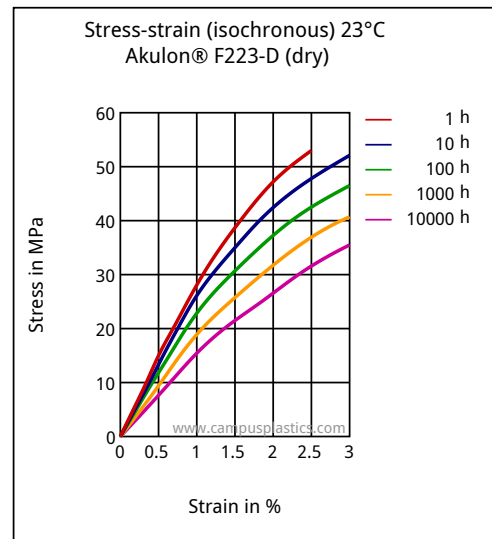
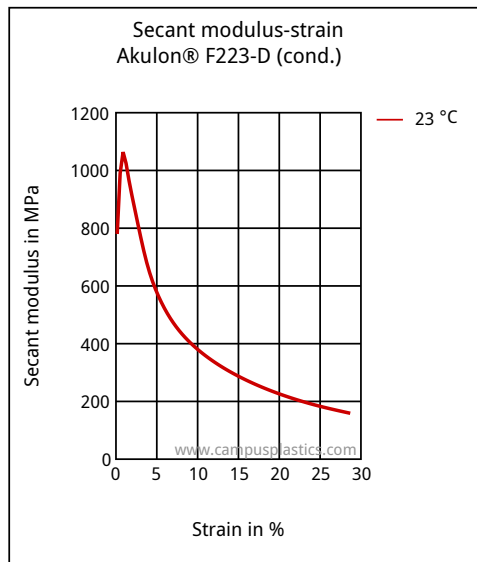
[Privacy Policy](#)

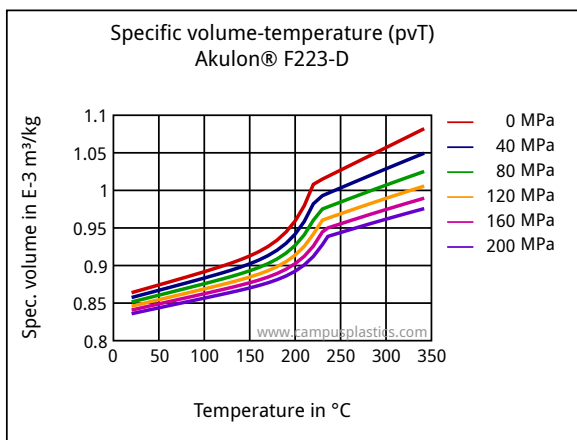
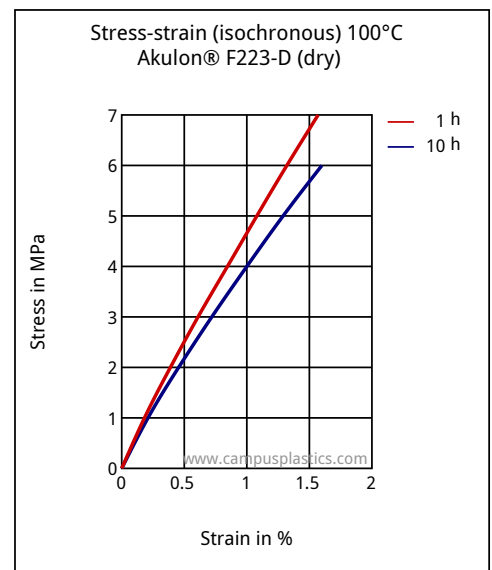
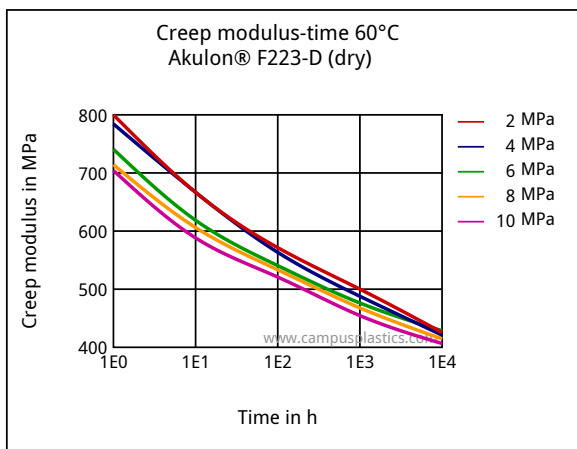
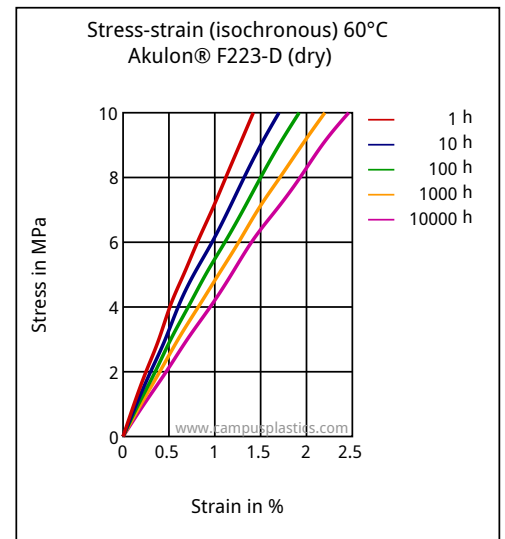
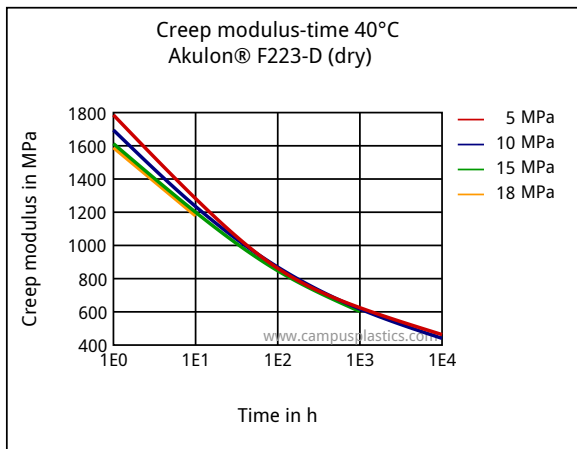
[Close](#)

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>3.0 / *</b>	mm
Yellow Card available	<b>Yes / *</b>	-
FMVSS	<b>SE/NBR</b>	-
Oxygen index	<b>26 / *</b>	%
<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>
Relative permittivity, 100Hz	<b>3.2 / 14</b>	-
Relative permittivity, 1MHz	<b>3 / 4.5</b>	-
Dissipation factor, 100Hz	<b>50 / 3000</b>	E-4
Dissipation factor, 1MHz	<b>150 / 1200</b>	E-4
Volume resistivity	<b>1E13 / 1E10</b>	Ohm*m
Surface resistivity	<b>* / 1E14</b>	Ohm
Electric strength	<b>28 / 20</b>	kV/mm
Comparative tracking index	<b>* / 600</b>	-
<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>
Water absorption	<b>10 / *</b>	%
Humidity absorption	<b>2.8 / *</b>	%
Density	<b>1130 / -</b>	kg/m <sup>3</sup>
<b>Material specific properties</b>	<b>dry / cond</b>	<b>Unit</b>
Viscosity number	<b>132 / *</b>	cm <sup>3</sup> /g
<b>Rheological calculation properties</b>	<b>Value</b>	<b>Unit</b>
Density of melt	<b>960</b>	kg/m <sup>3</sup>
Thermal conductivity of melt	<b>0.23</b>	W/(m K)
Spec. heat capacity melt	<b>2680</b>	J/(kg K)
Eff. thermal diffusivity	<b>8.82E-8</b>	m <sup>2</sup> /s

## Diagrams







## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets

### Regional Availability

This website uses cookies. By using this website, you agree to the use of cookies.

[Privacy Policy](#)

[Close](#)

North America, Europe, 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)

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon.

Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.

The CAMPUS internet database is hosted by Altair Engineering GmbH. Altair Engineering GmbH assumes no liability for the system to be free of errors. Any decision about the application of materials must be double checked with the producer of this material.

CAMPUS® is a registered trademark of CWFG mbH, Frankfurt am Main, 2024