

TECHNICAL DATA SHEET

# Akulon® F136-DH

Envalior  
PA6

**Processing**

Film extrusion, Pipe/tube extrusion, Profile extrusion, Sheet extrusion, Other extrusion

**Delivery Form**

Pellets

**Additives**

Lubricants, Release agent

**Special Characteristics**

Heat stabilized or stable to heat

**Features**

Nucleated

## Product Text

**Product Information**

High Viscosity, Nucleated, Heat Stabilized, Tube Extrusion

ISO 1043 PA6

Mechanical Properties	Value	Unit	Standard
Tensile modulus	3150	MPa	ISO 527
Yield stress	85	MPa	ISO 527
Yield strain	4	%	ISO 527
Nominal strain at break	45	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	5.5	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	60	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	170	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	100	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		

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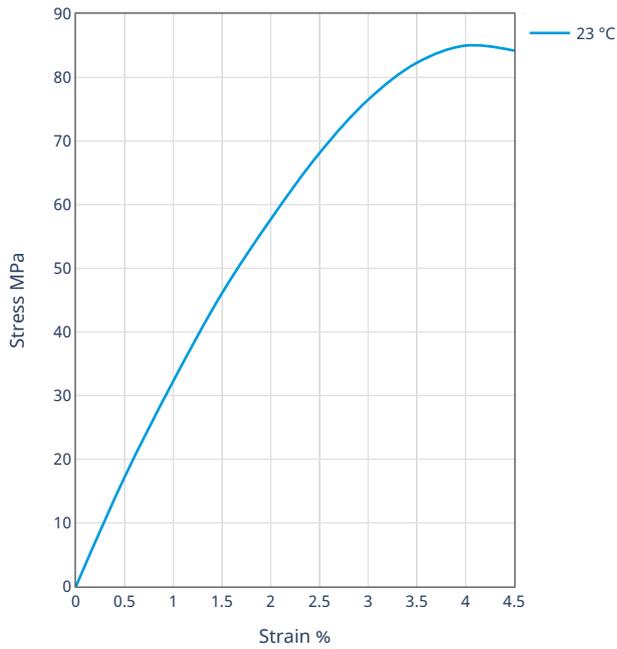
Thermal Properties	Value	Unit	Standard
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.4		IEC 62631-2-1
Relative permittivity, 1MHz	3.1		IEC 62631-2-1
Dissipation factor, 100Hz	65	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	165	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	25	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	9.5	%	Sim. to ISO 62
Humidity absorption	2.5	%	Sim. to ISO 62
Density	1130	kg/m <sup>3</sup>	ISO 1183
Film Properties	Value	Unit	Standard
Dynamic coefficient of friction	0.8		ISO 8295
Material Specific Properties	Value	Unit	Standard
Viscosity number	245	cm <sup>3</sup> /g	ISO 307, 1157, 1628

## Diagrams

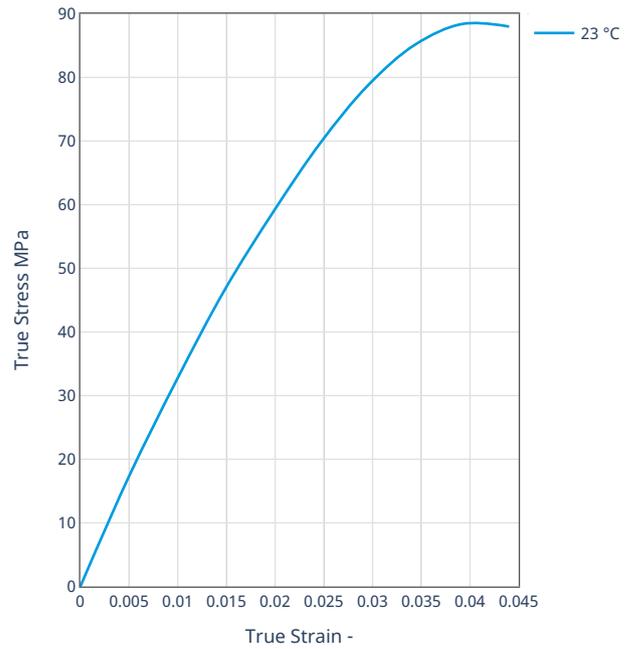
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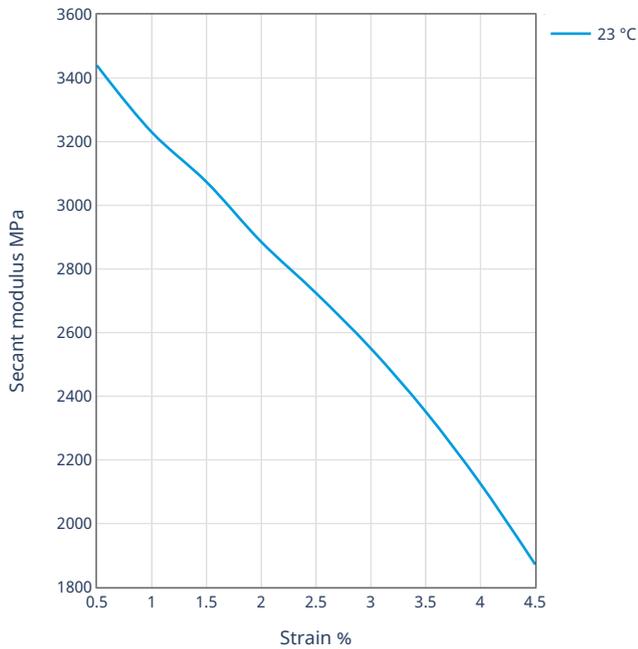
Stress-strain



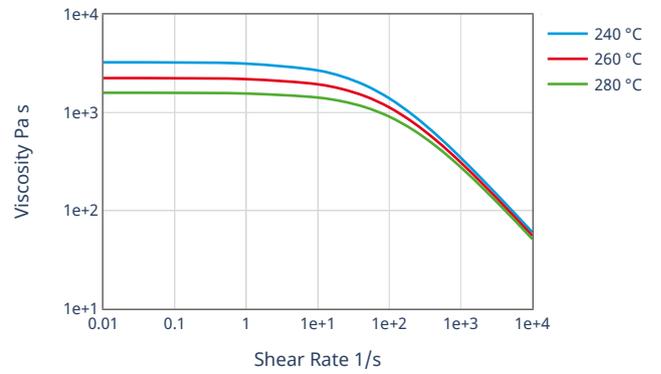
True stress-true strain



Secant modulus-strain



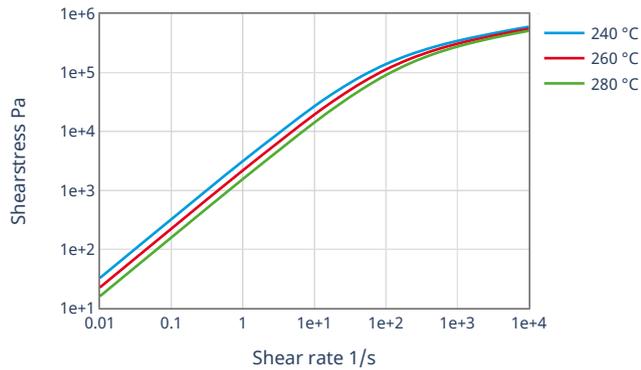
Viscosity-shear rate



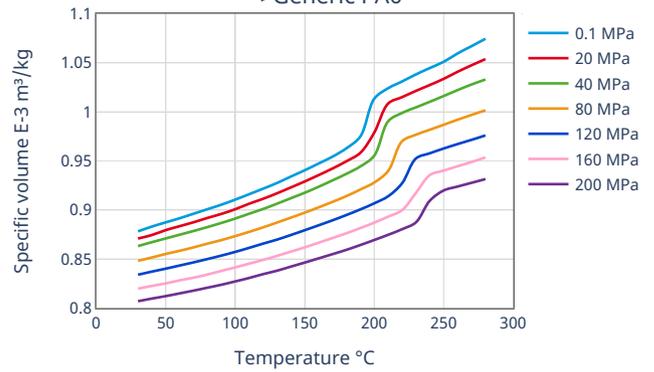
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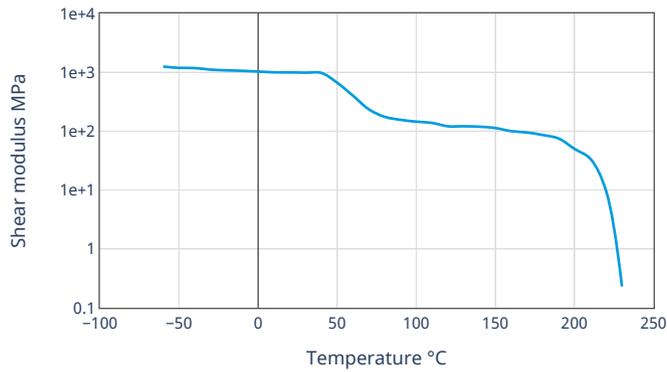
Shearstress-shear rate



Spec. volume-Temperature (pVT)  
->Generic PA6



Dynamic shear modulus-temperature



## Processing Information

Injection molding

Injection Molding Recommendations

Film extrusion

Processing of Akulon® Film Grades