

TECHNICAL DATA SHEET

# Akulon® K222-KGMV14

Envalior

PA6-(GF+MD)25 FR(30)

**Processing**

Injection molding

**Delivery Form**

Pellets

**Additives**

Release agent

**Special Characteristics**

Flame retardant, Halogen-free, Phosphorus-free, Heat stabilized or stable to heat

## Product Text

**Product Information**

5% Glass Reinforced, 20% Mineral Reinforced, Heat Stabilized, Flame Retardant (halogen- phosphorous-free)

ISO 1043 PA6-(GF+MD)25 FR(30)

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Molding shrinkage, normal	1	%	ISO 294-4, 2577
Density of melt	1162	kg/m <sup>3</sup>	
Thermal conductivity of melt	0.33	W/(m K)	
Spec. heat capacity of melt	2190	J/(kg K)	
Eff. thermal diffusivity	1.28E-7	m <sup>2</sup> /s	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	7000	MPa	ISO 527
Stress at break	90	MPa	ISO 527
Strain at break	2.5	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	40	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	35	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	3	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	3	kJ/m <sup>2</sup>	ISO 179/1eA

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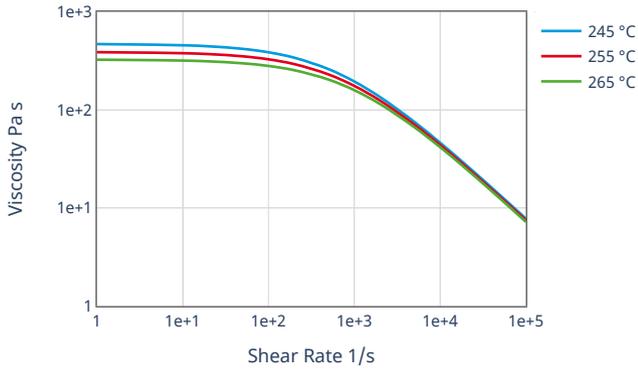
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	190	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	210	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-2	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Burning behav. at thickness h	V-2	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	4.2		IEC 62631-2-1
Relative permittivity, 1MHz	3.8		IEC 62631-2-1
Dissipation factor, 100Hz	90	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	190	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	30	kV/mm	IEC 60243-1
Comparative tracking index	475		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	6.8	%	Sim. to ISO 62
Humidity absorption	2	%	Sim. to ISO 62
Density	1360	kg/m <sup>3</sup>	ISO 1183

## Diagrams

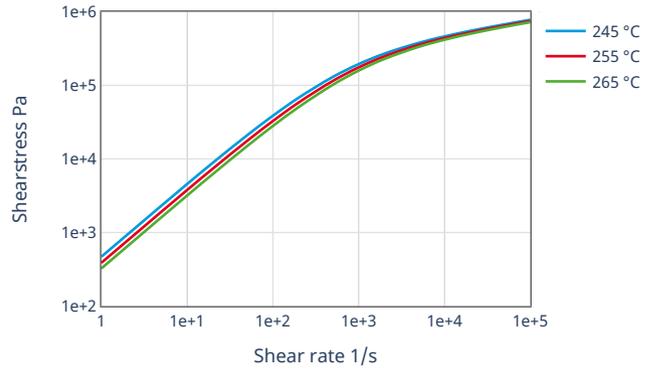
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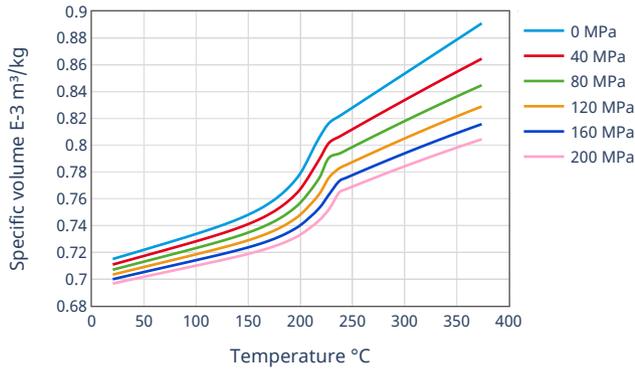
Viscosity-shear rate



Shearstress-shear rate



Spec. volume-Temperature (pVT)



## Processing Information

### Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding