

## DSM Akulon® S223-HM8 Nylon 66-40% Mineral Reinforced (European and Asian Grade) (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 40% Mineral Filled

### Material Notes:

The Akulon® product portfolio is engineered for optimum performance to suit different processing techniques and end use markets. Akulon Nylon 6 is used for extrusion applications including barrier film, stock shapes, convoluted tubes, and monofilament. Akulon XP is a high-productivity, high-performance PA6 grade for film extrusion processes. Medium viscosity, unreinforced or reinforced Akulon grades are used for various injection molding and blow molding applications. Akulon® Ultraflow® is a high-productivity, high-performance PA6 family for molding processes. Key applications for Akulon: Automotive: Intake manifold, Engine, Powertrain, Airbag containers, Exterior trim, Interior trim, Electrical components and connectors Consumer durables: Power tools, Lawn and garden tools, Small appliances, Sports and leisure equipment, Furniture, Industrial Goods, Transportation E&E: Low voltage switch gear/power distribution, Lighting, Power connectors Film: Specialty and barrier films Information provided by DSM.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DSM-Akulon-S223-HM8-Nylon-66-40-Mineral-Reinforced-European-and-Asian-Grade-Dry.php](http://www.lookpolymers.com/polymer_DSM-Akulon-S223-HM8-Nylon-66-40-Mineral-Reinforced-European-and-Asian-Grade-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.48 g/cc	0.0535 lb/in <sup>3</sup>	ISO 1183
Water Absorption	5.3 %	5.3 %	Sim. to ISO 62
Moisture Absorption at Equilibrium	1.4 %	1.4 %	Humidity Absorption; Sim. to ISO 62

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	90.0 MPa	13100 psi	ISO 527-1/-2
Elongation at Break	2.5 %	2.5 %	ISO 527-1/-2
Tensile Modulus	9.00 GPa	1310 ksi	ISO 527-1/-2
Charpy Impact Unnotched	3.50 J/cm <sup>2</sup>	16.7 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	4.00 J/cm <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.300 J/cm <sup>2</sup>	1.43 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	40.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	22.2 $\mu\text{in}/\text{in}\cdot\text{°F}$	ISO 11359-1/-2
	@Temperature 20.0 $\text{°C}$	@Temperature 68.0 $\text{°F}$	
CTE, linear, Transverse to Flow	40.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	22.2 $\mu\text{in}/\text{in}\cdot\text{°F}$	ISO 11359-1/-2
	@Temperature 20.0 $\text{°C}$	@Temperature 68.0 $\text{°F}$	
Melting Point	260 $\text{°C}$	500 $\text{°F}$	10 $\text{°C}/\text{min}$ ; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	245 $\text{°C}$	473 $\text{°F}$	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	200 $\text{°C}$	392 $\text{°F}$	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	HB	HB	IEC 60695-11-10
	@Thickness 0.710 mm	@Thickness 0.0280 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Dielectric Constant	3.5	3.5	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	3.8	3.8	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	35.0 kV/mm	889 kV/in	IEC 60243-1
Dissipation Factor	0.010	0.010	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.011	0.011	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
Heat stabilized or stable to heat	Yes	
Injection molding	Yes	
Release Agent	Yes	
With Fillers	Yes	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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