

DSM Akulon® XP32-E1 PA6

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Film Grade

Material Notes:

Film Extrusion, Medium Viscosity, Lubricated, Nucleated

Order this product through the following link:

http://www.lookpolymers.com/polymer_DSM-Akulon-XP32-E1-PA6.php

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Vapor Transmission	35.0 g/m ² /day @Temperature 23.0 °C	2.25 g/100 in ² /day @Temperature 73.4 °F	at 85% r.h., Film; DIS 15106-1/-3
Oxygen Transmission	1.05 cc-mm/m ² -24hr-atm @Temperature 23.0 °C	2.67 cc-mil/100 in ² -24hr-atm @Temperature 73.4 °F	at 0% r.h., Film; DIS 15105-1/-2
	1.55 cc-mm/m ² -24hr-atm @Temperature 23.0 °C	3.94 cc-mil/100 in ² -24hr-atm @Temperature 73.4 °F	at 85% r.h., Film; DIS 15105-1/-2
Viscosity	1.45e+6 cP @Temperature 260 °C	1.45e+6 cP @Temperature 500 °F	Melt Viscosity; DSM Method
	200000 cP @Shear Rate 1000 1/s, Temperature 280 °C	200000 cP @Shear Rate 1000 1/s, Temperature 536 °F	
	250000 cP @Shear Rate 1000 1/s, Temperature 260 °C	250000 cP @Shear Rate 1000 1/s, Temperature 500 °F	
	300000 cP @Shear Rate 1000 1/s, Temperature 240 °C	300000 cP @Shear Rate 1000 1/s, Temperature 464 °F	
	1.00e+6 cP @Shear Rate 0.100 1/s, Temperature 280 °C	1.00e+6 cP @Shear Rate 0.100 1/s, Temperature 536 °F	
	2.00e+6 cP @Shear Rate 0.100 1/s, Temperature 260 °C	2.00e+6 cP @Shear Rate 0.100 1/s, Temperature 500 °F	
	3.00e+6 cP @Shear Rate 0.100 1/s,	3.00e+6 cP @Shear Rate 0.100 1/s,	

Physical Properties	Temperature 240 °C Metric	Temperature 464 °F English	Comments
Viscosity Measurement	2.8	2.8	RSV formic acid, 1g/100ml; DSM Method
Viscosity Test	177 cm ³ /g	177 cm ³ /g	Viscosity Number; ISO 307, 1157, 1628
Thickness	50.0 microns	1.97 mil	Film

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	36.0 MPa	5220 psi	parallel; ISO 527-3
Film Elongation at Break, MD	340 %	340 %	parallel; ISO 527-3
Modulus of Elasticity	0.490 GPa	71.1 ksi	Film; DSM-Method, 50mm/min
Coefficient of Friction, Dynamic	0.80	0.80	Film; ISO 8295
Coefficient of Friction, Static	1.4	1.4	Film; ISO 8295
Tear Strength Test	23	23	Trouser Tear Resistance, parallel, Film; ISO 6383-1
Film Tensile Strength at Break, MD	96.0 MPa	13900 psi	parallel; ISO 527-3

Thermal Properties	Metric	English	Comments
CTE, linear	90.0 μm/m-°C	50.0 μin/in-°F	ISO 11359-1/-2
Specific Heat Capacity	1.55 J/g-°C	0.370 BTU/lb-°F	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	2.55 J/g-°C	0.609 BTU/lb-°F	
	@Temperature 20.0 - 150 °C	@Temperature 68.0 - 302 °F	

Optical Properties	Metric	English	Comments
Transmission, Visible	85 %	85 %	Film; DSM Method

Processing Properties	Metric	English	Comments
Processing Temperature	270 °C	518 °F	Extruder Temperature, Film
Die Temperature	270 °C	518 °F	
Roll Temperature	110 °C	230 °F	

Descriptive Properties	Value	Comments
------------------------	-------	----------

Extrusion Type Descriptive Properties	Cast Film Value	Comments
Puncture Resistance	1200 J/m	Film (DSM Method)

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China