

Akulon® F136-E2

DSM Engineering Plastics - Polyamide 6

Monday, January 20, 2020

General Information

Product Description

Very High Viscosity, Lubricated, Nucleated, Film Extrusion

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Lubricant • Nucleating Agent		
Features	• High Viscosity	• Lubricated	• Nucleated
Processing Method	• Extrusion • Film Extrusion		
Resin ID (ISO 1043)	• PA6		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm ³	ISO 1183
Viscosity Number	245	cm ³ /g	ISO 307
Mechanical	Nominal Value	Unit	Test Method
Coefficient of Friction			ISO 8295
Dynamic	0.80		
Static	1.4		
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	50	µm	
Tensile Modulus ²	465	MPa	Internal Method
Tensile Stress - MD (Yield)	34.0	MPa	ISO 527-3
Tensile Stress - MD (Break)	94.0	MPa	ISO 527-3
Tensile Elongation - MD (Break)	350	%	ISO 527-3
Trouser Tear - Parallel	32.0		ISO 6383-1
Water Vapor Transmission Rate (23°C, 85% RH)	35	g/m ² /24 hr	DIS 15106-1/-3
Oxygen Transmission Rate			DIS 15105-1/-2
0% RH : 23°C	23	cm ³ /m ² /bar/24 hr	
85% RH : 23°C	33	cm ³ /m ² /bar/24 hr	
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow	9.0E-5	cm/cm/°C	ISO 11359-2
Specific Heat Capacity	1550	J/kg/°C	
Optical	Nominal Value	Unit	Test Method
Clarity	85	%	Internal Method
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (260°C)	2.25E+6	mPa-s	Internal Method
Average Specific Heat Capacity (20 to 150°C)	2250	J/kg/°C	
Additional Information	Nominal Value	Unit	Test Method
Puncture Resistance	13.3	J/cm	Internal Method
RSV - Formic Acid, 1g/100ml	3.60		Internal Method

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Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	270	°C
Cylinder Zone 2 Temp.	270	°C
Cylinder Zone 3 Temp.	270	°C
Cylinder Zone 4 Temp.	270	°C
Die Temperature	270	°C
Take-Off Roll	110	°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 50 mm/min