

# Akulon® F127

## PA6

Low/Medium Viscosity, Film Extrusion, Food Contact Quality

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Properties	Typical Data	Unit	Test Method
<b>Thermal properties</b>			
	Value		
Coeff. of linear therm. expansion (parallel)	0.9	E-4/°C	ISO 11359-1/-2
Spec. heat capacity	1550	J/(kg K)	-
Average spec. heat capacity 20-150 °C	2250	J/(kg K)	
<b>Material specific properties</b>			
	Value		
Viscosity number	168	cm <sup>3</sup> /g	ISO 307, 1157, 1628
RSV formic acid, 1g/100ml	2.7	-	DSM method
Melt Viscosity (260 °C)	410	Pa s	DSM method, 260 °C
Density	1130	kg/m <sup>3</sup>	ISO 1183
<b>Other Properties (Film)</b>			
	Value		
Transparency/Clarity	83	%	DSM method
Oxygen transmission rate at 23°C/0%r.h.	26	cm <sup>3</sup> /(m <sup>2</sup> *d*bar)	DIS 15105-1/-2
Oxygen transmission rate at 23°C/85%r.h.	38	cm <sup>3</sup> /(m <sup>2</sup> *d*bar)	DIS 15105-1/-2
Water Vapor Transmission Rate at 23°C/85%r.h.	35	g/(m <sup>2</sup> *d)	DIS 15106-1/-3
<b>Mechanical properties (Film)</b>			
	Value		
Modulus of elasticity	460	MPa	DSM-Method, 50 mm/min
Stress at yield, parallel	32	MPa	ISO 527-3
Maximum stress, parallel	80	MPa	ISO 527-3
Maximum strain, parallel	350	%	ISO 527-3
Trouser Tear resistance, parallel	32	-	ISO 6383-1
Puncture resistance	1150	J/m	DSM-Method

Properties	Typical Data	Unit	Test Method
Static coefficient of friction	1.5	-	ISO 8295
Dynamic coefficient of friction	1.2	-	ISO 8295

## Test specimen production (Film)

Test specimen production (Film)	Value	Unit	
Type of extrusion	cast	-	-
Thickness of specimen	0.05	mm	-
Extruder temperature	270	°C	
Die temperature	270	°C	
Chill Roll Temperature	110	°C	

## Viscosity-shear rate

