

Akulon® XS32-C1 (FC-X9207)

PA6 copolymer

High Viscosity, Lubricated, Film Extrusion, Food Contact Quality

PA with lower crystallization speed compared to PA6

Properties	Typical Data	Unit	Test Method
Material specific properties			
Viscosity number	210	cm ³ /g	ISO 307, 1157, 1628
RSV formic acid, 1g/100ml	3.2	-	DSM method
Melt Viscosity (260 °C)	1120	Pa s	DSM method, 260 °C
Density	1130	kg/m ³	ISO 1183
Thermal properties			
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)	
Mechanical properties (Film)			
Modulus of elasticity	450	MPa	DSM-Method, 50 mm/min
Stress at yield, parallel	32	MPa	ISO 527-3
Maximum stress, parallel	83	MPa	ISO 527-3
Maximum strain, parallel	350	%	ISO 527-3
Trouser Tear resistance, parallel	32	-	ISO 6383-1
Puncture resistance	1300	J/m	DSM-Method
Static coefficient of friction	1.2	-	ISO 8295
Dynamic coefficient of friction	1	-	ISO 8295

Other Properties (Film) Value



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Transparency/Clarity	83	%	DSM method
Oxygen transmission rate at 23°C/0%r.h.	26	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Oxygen transmission rate at 23°C/85%r.h.	38	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Water Vapor Transmission Rate at 23°C/85%r.h.	35	g/(m ² *d)	DIS 15106-1/-3

Test specimen production (Film)

	Value		
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

