

Akulon[®] F–X9171

PA6

Medium Viscosity, Nucleated, Lubricated, Film Extrusion, Food Contact Quality

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MATERIAL SPECIFIC PROPERTIES			
	VALUE		
Viscosity number	195	cm ³ /g	ISO 307, 1157, 1628
RSV formic acid, 1g/100ml	3	–	Envalior Method
Melt Viscosity (260 °C)	810	Pa s	Envalior Method, 260 °C
Density	1130	kg/m ³	ISO 1183
THERMAL PROPERTIES			
	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)	
MECHANICAL PROPERTIES (FILM)			
	VALUE		
Modulus of elasticity	465	MPa	Envalior Method, 50 mm/min
Stress at yield, parallel	34	MPa	ISO 527–3
Maximum stress, parallel	96	MPa	ISO 527–3
Maximum strain, parallel	350	%	ISO 527–3
Trouser Tear resistance, parallel	33	–	ISO 6383–1
Puncture resistance	1230	J/m	Envalior Method
Static coefficient of friction	1.4	–	ISO 8295
Dynamic coefficient of friction	0.8	–	ISO 8295
OTHER PROPERTIES (FILM)			
	VALUE		

Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Transparency/Clarity	85	%	Envalior Method
Oxygen transmission rate at 23°C/0%r.h.	20	cm³/(m²*d*bar)	DIS 15105–1/–2
Oxygen transmission rate at 23°C/85%r.h.	31	cm³/(m²*d*bar)	DIS 15105–1/–2
Water Vapor Transmission Rate at 23°C/85%r.h.	35	g/(m²*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

