

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	-	DSM method
Melt Viscosity (260 °C)	810	Pa s	DSM 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	DSM-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	DSM-Method
Static coefficient of friction	1.4	-	ISO 8295
Dynamic coefficient of friction	0.8	-	ISO 8295
Other Properties (Film)			
	Value		
Transparency/Clarity	85	%	DSM method
Oxygen transmission rate at 23°C/0%r.h.	20	cm ³ /(m ² *d*bar)	DIS 15105-1/-2



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Oxygen transmission rate at 23°C/85%r.h.	31	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

