

Akulon® F136-C1

PA6

Very High Viscosity, Film Extrusion, Lubricated, Food Contact Quality

Print Date: 2019-02-19

Properties	Typical Data	Unit	Test Method
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)	
Material specific properties			
	Value		
Viscosity number	245	cm ³ /g	ISO 307, 1157, 1628
RSV formic acid, 1g/100ml	3.6	-	DSM method
Melt Viscosity (260 °C)	2250	Pa s	DSM method, 260 °C
Density	1130	kg/m ³	ISO 1183
Other Properties (Film)			
	Value		
Transparency/Clarity	83	%	DSM method
Oxygen transmission rate at 23°C/0%r.h.	27	cm ³ /(m ² *d*bar)	DIS 15105-1/-2
Oxygen transmission rate at 23°C/85%r.h.	39	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
Mechanical properties (Film)			
	Value		
Modulus of elasticity	450	MPa	DSM-Method, 50 mm/min
Stress at yield, parallel	31	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	1400	J/m	DSM-Method

Properties	Typical Data	Unit	Test Method
Static coefficient of friction	1.2	-	ISO 8295
Dynamic coefficient of friction	1	-	ISO 8295

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

