

TECHNICAL DATA SHEET

PHARMALENE® FL 45 PH

Versalis S.p.A

EVAC

Processing

 Injection molding, Blown film extrusion, Film extrusion,
 Other extrusion

Delivery Form

Pellets

Features

Heat sealable, Copolymer

Certifications

 Food contact, Food approval 10/2011, Food approval FDA 21
 CFR, Medical grade, US Pharmacopeia class VI approved

Applications

Medical, Packaging

Processing/Physical Characteristics	Value	Unit	Standard
Melt flow index, MFI	2.5	g/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Mechanical Properties	Value	Unit	Standard
Flexural modulus, 23°C	60	MPa	ISO 178
Shore D hardness	40		ISO 7619-1
Shore A hardness, 15s	92		ISO 7619-1
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	91	°C	ISO 11357-1/-3
Vicat softening temperature, A	67	°C	ISO 306
Optical Properties	Value	Unit	Standard
Haze	2		ISO 14782
Gloss	85		ASTM D 2457
Other Properties	Value	Unit	Standard
Density	935	kg/m³	ISO 1183
Film Properties	Value	Unit	Standard
Stress at yield, parallel	5.5	MPa	ISO 527-3
Stress at yield, normal	5	MPa	ISO 527-3
Stress at break, parallel	28	MPa	ISO 527-3

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Film Properties	Value	Unit	Standard
Stress at break, normal	26	MPa	ISO 527-3
Maximum strain, parallel	500	%	ISO 527-3
Maximum strain, normal	700	%	ISO 527-3
Dart drop A	400	g	ISO 7765-1
Dynamic coefficient of friction	0.5		ISO 8295
Type of extrusion	blown		
Processing Recommendation Extrusion	Value	Unit	Standard
Type of extrusion	blown		
Melt temperature	150 - 170	°C	