## EUROPLEX® Film HPF 99211

## Polyphenylsulfone

## **Evonik Industries AG**

## Message:

The base material for this clear film is amorphous polyphenyl sulphone. It meets FDA and USP requirements making it suitable for food contact and medical applications.

In addition to its excellent thermal and mechanical properties, this film is particularly highly resistant to hydrolysis and withstands multiple sterilization by all conventional methods.

The transparent material exhibits an exceptionally high refractive index. It can be produced with excellent surface quality to meet demanding optical requirements.

General Information				
Features	Amorphous			
	Flame Retardant			
	Food Contact Acceptable			
	Good Chemical Resistance			
	Good Sterilizability			
	Hydrolysis Resistant			
	Outstanding Surface Finish			
Uses	Medical/Healthcare Applicat	tions		
Agency Ratings	FDA Unspecified Rating			
	USP Unspecified Rating			
Appearance	Clear/Transparent			
Forms	Film			
	Sheet			
Physical	Nominal Value	Unit	Test Method	
Density (23°C)	1.30	g/cm <sup>3</sup>	ISO 1183	
Dimensional Stability		9,	ASTM D1042	
Across Flow, 180°C	0.0	%		
Across Flow, 220°C	0.30	%		
Flow, 180°C	0.0	%		
Flow, 220°C	2.5	%		
Water Absorption (Saturation, 23°C)	1.1	%	ISO 62	
Films	Nominal Value	Unit	Test Method	
Film Puncture Force <sup>1</sup>				
25 µm	50.0	Ν		
50 µm	100	Ν		
130 µm	210	Ν		

Yield, 25 µm	70.0	MPa	
Yield, 50 µm	75.0	MPa	
Yield, 130 µm	75.0	MPa	
Yield, 250 µm	75.0	MPa	
25 µm	70.0	MPa	
50 µm	75.0	MPa	
130 µm	80.0	MPa	
250 μm	80.0	MPa	
Tensile Elongation			ISO 527-3/100
Break, 25 µm	25	%	
Break, 50 µm	90	%	
Break, 130 µm	> 100	%	
Break, 250 µm	> 100	%	
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	222	°C	ISO 306/B
Service Temperature	190	°C	
Smoke Density	Pass		AITM 2.0007
Smoke Toxicity	Pass		AITM 3.0005
OSU Test			
HR : 250.0 µm	16.0	kW · min/m²	FAR 25.853(d)
HRR : 250.0 μm	12.0	kW/m²	AITM 2.0006
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
0.125 mm	VTM-1		
0.0500 mm	VTM-0		
Optical	Nominal Value		Test Method
Refractive Index	1.675		ISO 489
NOTE			
1.	MOD Def Stan 81-75		

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