

## Premix Thermoplastics PREFLEX E12.5 Polyphenylene Ether (PPO/PPE)

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO

### Material Notes:

PREFLEX films combine outstanding dielectric properties, good heat stability, low water absorption and chemical resistance in a way not available before. Also rigid boards made of the same material are available and marketed under the name PREBOARD. Thus the same material can also be used in rigid/flex boards. The material lends itself also well for injection moulding and is available for that purpose in granules sold under the name PREPERM. This enables the production of 3D circuit boards. Key features: Low dissipation factor Low dielectric constant Low water absorption High Tg Zero shrinkage even at 190°C Low CTE in all directions Excellent adhesion with inks and adhesives Excellent chemical resistance Minimum thicknesses below 10 microns Recyclable and RoHS compliant Non halogen flame retardant grades also available Applications: Flexible printed circuits, printed electronics, fuel cells and other uses calling for a special film. Information from Premix OY

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Premix-Thermoplastics-PREFLEX-E125-Polyphenylene-Ether-PPOPPE.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PREFLEX-E125-Polyphenylene-Ether-PPOPPE.php)

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in <sup>3</sup>	
Thickness	12.5 microns	0.492 mil	

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	25 %	25 %	
Film Elongation at Break, TD	13 %	13 %	
Film Tensile Strength at Break, MD	55.0 MPa	7980 psi	
Film Tensile Strength at Break, TD	50.0 MPa	7250 psi	

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	210 °C	410 °F	
Shrinkage, MD	2.0 %	2.0 %	
	0.00 %	0.00 %	
	@Temperature 190 °C, Time 7200 sec	@Temperature 374 °F, Time 2.00 hour	
Shrinkage, TD	0.40 %	0.40 %	
	0.00 %	0.00 %	
	@Temperature 200 °C, Time 600 sec	@Temperature 392 °F, Time 0.167 hour	

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.55	2.55	
	@Frequency 1.00e+9 - 1.00e+10 Hz	@Frequency 1.00e+9 - 1.00e+10 Hz	
Dissipation Factor	0.00050	0.00050	
	@Frequency 1.00e+9 - 1.00e+10 Hz	@Frequency 1.00e+9 - 1.00e+10 Hz	

  

Processing Properties	Metric	English	Comments
Moisture Content	<= 0.20 %	<= 0.20 %	

## Contact Songhan Plastic Technology Co.,Ltd.

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