

# Properties of Hi-dielectric m-PPE resin

Properties	Test Method	Terms	Units	HD7006	HD7007
				(under development)	
				Base Resin: mPPE	Base Resin: mPPE
<b>Physical Properties</b>					
Density	ISO 1183			1.28	1.32
<b>Rheological Properties</b>					
Melt Mass-flow Rate	ISO 1133	300°C, 5kg	g/10min		
Melt Volume-flow Rate			cm <sup>3</sup> /10min	7.1	6.7
Moulding Shrinkage (3.2mmt)		MD	%	0.4 - 0.6	0.4 - 0.6
		TD		0.4 - 0.6	0.4 - 0.6
<b>Mechanical Properties</b>					
Stress at Break	ISO 527-1 , 527-2		MPa	60	60
Strain at Break			%	3	2
Flexural Strength	ISO 178	-	MPa	106	95
Flexural Modulus				4200	4800
Charpy Impact Strength	ISO 179-1 , 179-2	23°C	kJ/m <sup>2</sup>	15	12
Charpy Notched Impact Strength		23°C			
<b>Thermal Properties</b>					
Temperature of Deflection Under Load	ISO 75-1, 75-2	1.80MPa	°C	127	127
Flammability	UL94				
<b>Electrical Properties</b>					
Relative Permittivity	IEC 62562	1GHz	MD / TD	7.1 / 7.2	7.9 / 8.2
		2.45GHz	MD / TD		
Dissipation Factor		1GHz	MD / TD	0.004 / 0.005	0.006 / 0.008
		2.45GHz	MD / TD		

FYR: A typical modified-PPE has a relative permittivity of 2.8 and a dissipation factor of 0.004.

\* The values described are typical values only.

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