

# TYPICAL PROPERTIES DATA SHEET

Hony Engineering Plastics Limited

## HONYPLAS®PEEK ESD TYPICAL PROPERTIES DATA SHEET

### ① Raw materials

<b>Standard grade</b>	Laminated grade	<b>Appearance color</b>	Natural and black
<b>Application</b>	Processing material, plate, rod; mainly used in the semiconductor test fixture, fixture, electronic or electrical semiconductors and so on.		
<b>Characteristics:</b>	Good antistatic property, high temperature resistance, excellent mechanical properties, self-lubricating property, chemical resistant, flame retardant, peeling resistance, radiation resistance, insulation stability, hydrolysis resistance and ease of processing.		

### ② Raw materials technical data

Property item	Test conditions (status)	Test method	Test data	Unit
<b>I. Physical properties</b>				
Density	---	ISO1183	1.4	g/cm <sup>3</sup>
Shrinkage	---	ISO 294-4	1.0~1.3	%
Water absorption	---	ISO 62	0.05	%
Flame retardance	---	UL94	V-0	Class
<b>II. Mechanical properties</b>				
Tensile strength	23°C	ISO 527	200	MPa
Elongation at break	23°C	ISO 527	6	%
Flexural strength	23°C	ISO 178	280	MPa
Flexural modulus	23°C	ISO 178	15	MPa
Hardness- ROCKWELL	---	ISO 2039-2	105	M (Scale)
Hardness- Shore D	23°C	ISO 868	88	D
IZOD Impact Strength (Notched)	23°C	ISO 180/U	7	kJ/m <sup>2</sup>
IZOD Impact Strength (Notched)	23°C	ISO 180/A	6	kJ/m <sup>2</sup>
Friction coefficient	---	ISO 9352	0.2	---
<b>III. Thermal properties</b>				
Heat deflection temperature(HDT)	1.80MPa	ISO 75A-f	153	°C
Max.working temperature-short time	---	UL746B	310	°C
Max.working temperature-long time	---	UL746B	260	°C
Thermal Conductivity	23°C	ISO 22007-4	1	Wm <sup>-1</sup> K <sup>-1</sup>
Coefficient of thermal expansion	---	ISO 11359	7	10 <sup>-5</sup> °C
<b>IV. Electrical properties</b>				
Permittivity	23°C 50MHz	IEC 60250	3.2	10 <sup>6</sup> Hz
Dielectric loss factor	23°C 1MHz	IEC 60250	0.003	10 <sup>6</sup> Hz
Dielectric Strength	---	IEC 60243	19	kV/mm
Volume resistivity	23°C	IEC 60093	10 <sup>6</sup> -10 <sup>9</sup>	(Ω) * cm
Surface resistivity	23°C	IEC 60093	10 <sup>6</sup> -10 <sup>9</sup>	(Ω)
<b>V. Others</b>				

NOTE: 1 g/cm<sup>3</sup> = 1,000 kg/m<sup>3</sup>, 1 Mpa = 1 N/mm<sup>2</sup>, 1kV/mm = 1 MV/m

#### STATEMENT:

The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. HONY will not provide any legally binding guarantee of certain properties, or any suitability.