

## Product Technical Sheet

**Product** EMI PEI Polyether imide ultrafine powder

**Appearance** fine powder natural colour

**Introduction** EMI PEI an amorphous high-temperature resistant polyetherimide micropowder with good dimensional stability. The coefficient of thermal expansion is small and uniform; Excellent strength-weight ratio; It has high heat resistance, high strength and modulus, and extensive chemical resistance.

### 【Features】

- ◆ higher glass transition temperature: Tg=217°C
- ◆ It has flame retardancy and low smoke without adding any additives.oxygen index 47% , combustion grade UL94-V-0
- ◆ Excellent mechanical strength, electrical insulation, radiation resistance, high and low temperature resistance, fatigue resistance and molding processability.
- ◆ Excellent long-term thermal stability, long-term use temperature of 200~220°C
- ◆ Excellent metal adhesion, formability and excellent flame retardancy.

### 【application】

Recommended applications include the prepreg of carbon fibre in the aeronautics and aviation industry,consumer electronics and the automotive industry.

### 【Specifications】

Items	Product Name	
	EMI PEI-MP20	EMI PEI-MP40
particle size D50 (um)	22±2	40±2
Tg (°C)	217	217
Bulk Density (g/cm <sup>3</sup> )	0.30~0.40	0.30~0.40

### 【FDA declare】

PES-MP20G can be used in coating systems for food contact, which conforms to FDA regulation 21 CFR 177.2440 and German BFR recommendations.(subject to complete curing of surface with out presence of non-volatile solvents).

### 【Package】

10 kg/Carton, PE inner lining

### 【Storage】

It must be stored in a clean and dry condition, away from dust and moisture.

THE INFORMATION CONTAINED IN THIS BROCHURE IS AN ACCURATE DESCRIPTION OF THE TYPICAL CHARACTERISTICS AND/OR USES OF THE PRODUCT OR PRODUCTS, BUT IT IS THE CUSTOMER'S RESPONSIBILITY TO THOROUGHLY TEST THE PRODUCT IN EACH SPECIFIC APPLICATION TO DETERMINE ITS PERFORMANCE, EFFICACY AND SAFETY FOR EACH END-USE PRODUCT, DEVICE OR OTHER APPLICATION. SUGGESTIONS OF USES SHOULD NOT BE TAKEN AS INDUCEMENTS

## Typical Properties

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	110	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	60	%	ASTM D 638
Tensile Modulus, 5 mm/min	3580	MPa	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	165	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	3510	MPa	ASTM D 790
Hardness, Rockwell M	109	-	ASTM D 785
Taber Abrasion, CS-17, 1 kg	10	mg/ 1000cy	ASTM D 1044
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	1335	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	1335	J/m	ASTM D 256
Gardner, 23°C	36	J	ASTM D 3029
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	218	°C	ASTM D 1525
HDT, 0.45 MPa, 6.4 mm, unannealed	210	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	201	°C	ASTM D 648
CTE, -20°C to 150°C, flow	5.58E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	5.4E-05	1/°C	ASTM E 831
Thermal Conductivity	0.22	W/m·°C	ASTM C177
Relative Temp Index, Elec <sup>(1)</sup>	170	°C	UL 746B

