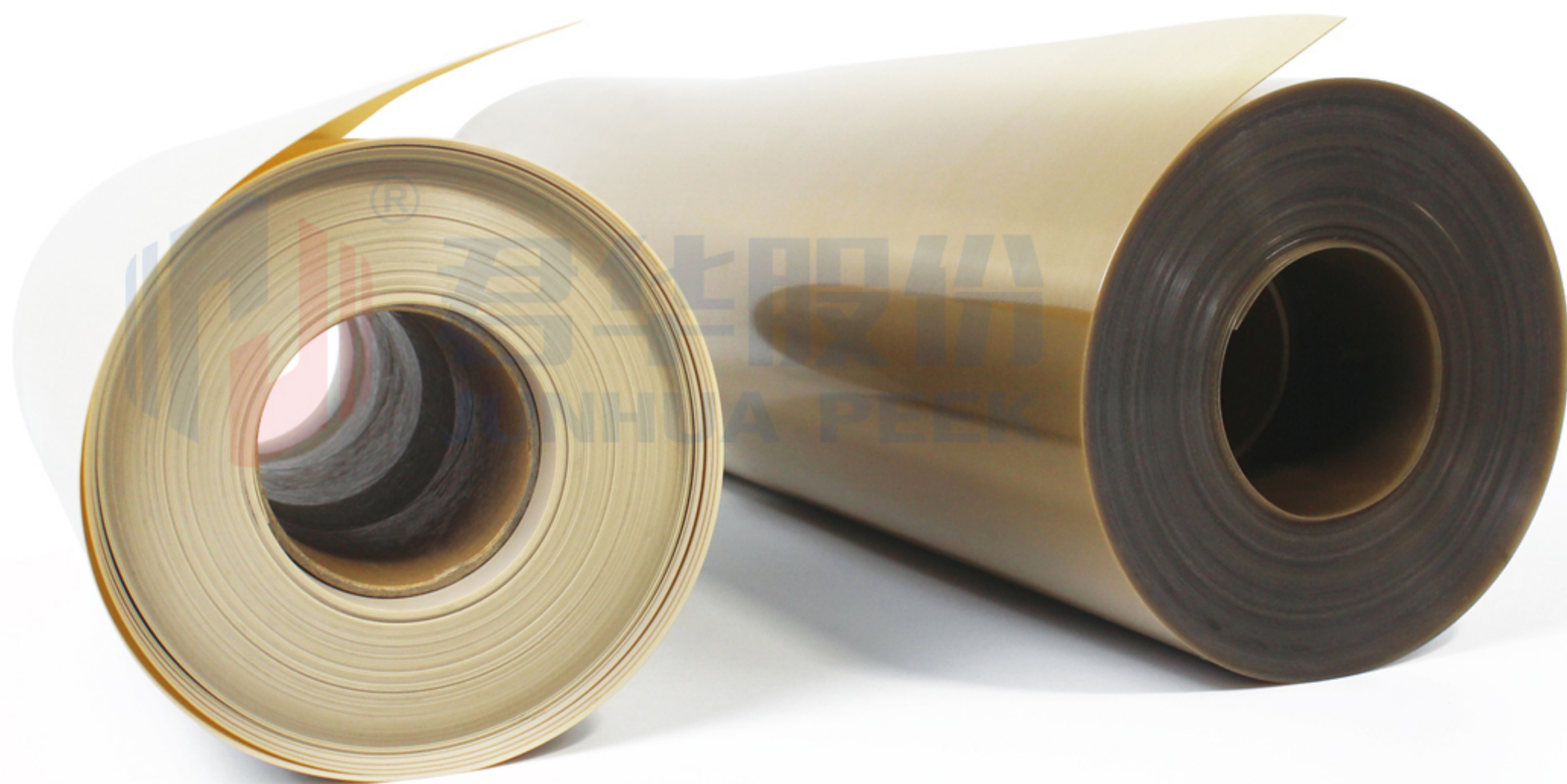


# PEEK FILMS/SHEET

POLY-ETHER-ETHER-KETONE



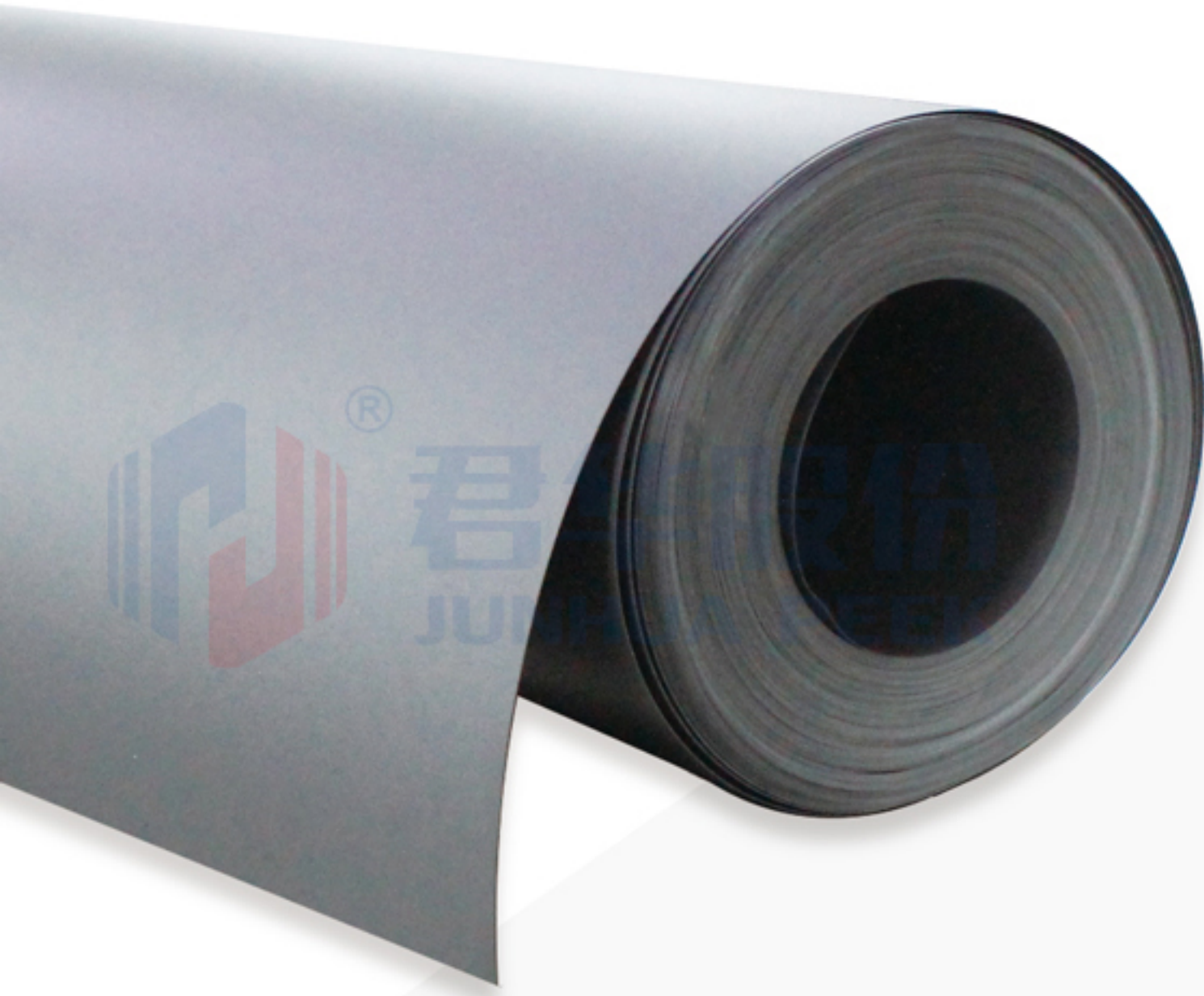
**5G应用的优质材料**  
High-Quality Materials for 5G Applications

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# PEEK FILMS/SHEET

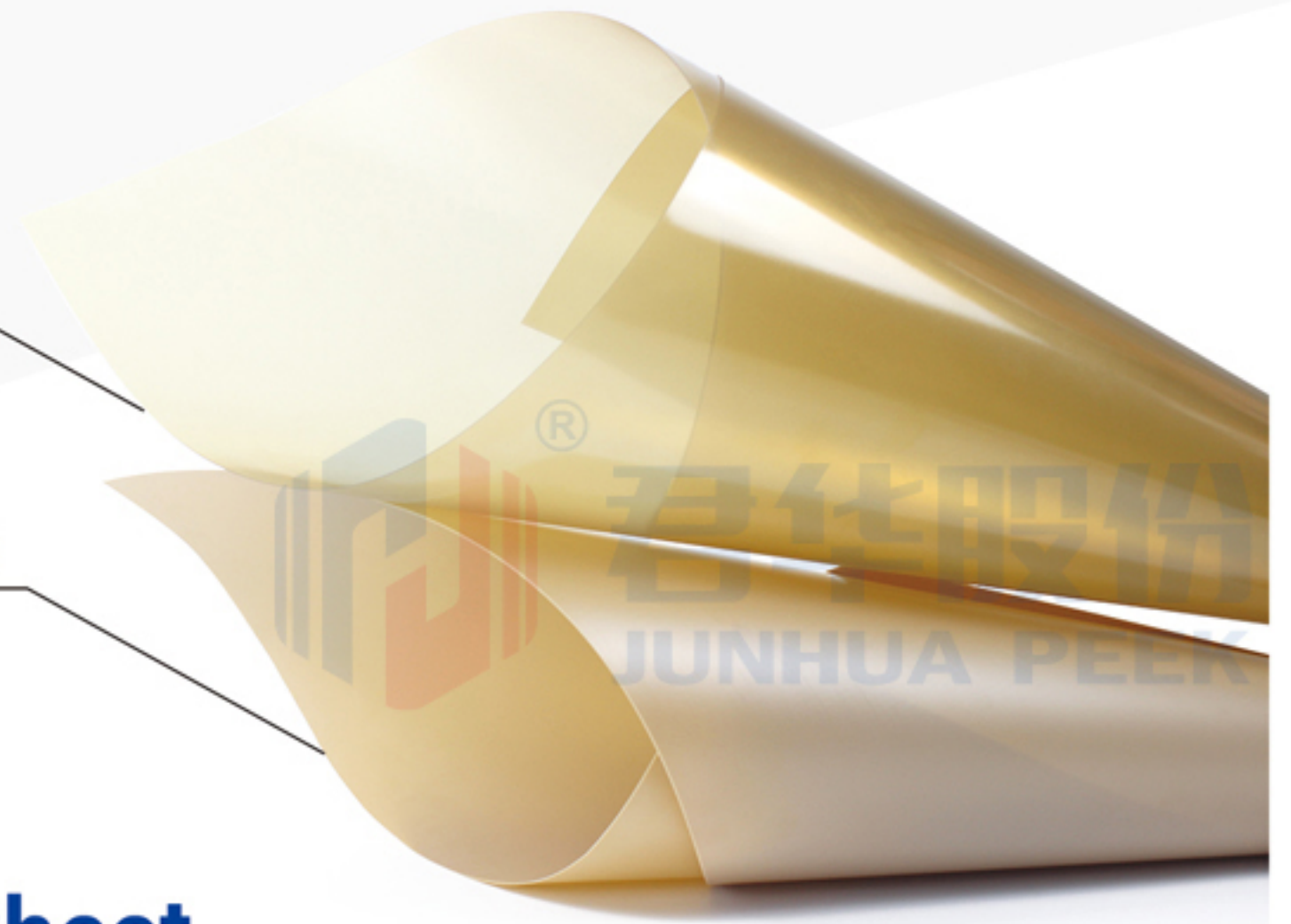
PEEK film/sheet is manufactured by melting PEEK particles at high temperature and forming them through a casting process.

The films we produce are mainly divided into amorphous transparent films and crystalline films.



Amorphous Film

Crystalline Film



## Application Industries of PEEK Film/Sheet



### Electronics

- CD and DVD motor washers
- Speaker diaphragms
- Circuit board substrates
- 5G antenna substrates and related components
- Supercapacitors



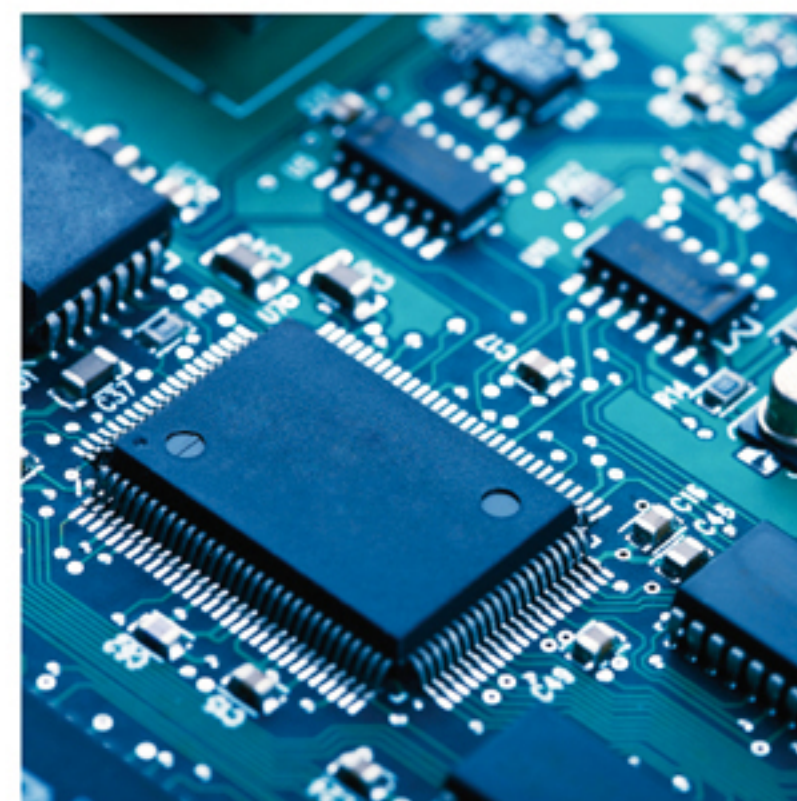
### Automobile

- Sealing gaskets
- Thrust washers
- Motor insulation
- High-temperature circuit boards



### Aerospace

- Insulating films
- Thermoformed parts
- Carbon fiber composites
- Multifunctional adhesive tapes



### Electronics and Semiconductors

- LCD glass polishing frames
- Silicon wafer carriers
- Wafer and glass transport belts



### Oil and Petrochemical

- Oil and gas cable wrapping materials
- RFID tags
- Magnet wire insulation
- Pressure sensors
- Flexible film heaters
- Conveyor belt devices
- High-performance labels



### Food and Medical

- Process belt devices
- Pharmaceutical labels
- Membrane switches
- Special packaging

## PEEK Film/Sheet Specification

Code	Color	Texture	(Thickness × width) mm
PEEK Film	Natural/Black	Polished / Polished Polished / Matte Matte / Matte	(0.1~0.25)×1360
PEEK Sheet			(0.25~0.4)×1360
			(0.5~0.8)×680

## PEEK Film/Sheet Physical Properties

	Property	Test Method	Units	Value
PHYSICAL	Density	ASTM D792	g/cm <sup>3</sup>	1.26~1.29
	Average Water Absorption Equilibrium,24h	ASTM D570	%	0.04
	Heat Shrinkage	ISO 11501 (200°C)	%	0.8~4.7
MECHANICAL	Tensile Strength at Yield	ASTM D882	MD (MPa)	70~90
		ASTM D882	TD (MPa)	68~86
	Tensile Strength at Break	ASTM D882	MD (MPa)	120~186
		ASTM D882	TD (MPa)	112~115
	Elongation Ultimate	ASTM D882	MD (%)	186~225
		ASTM D882	TD (%)	145~180
	Tensile Modulus	ASTM D882	MD (MPa)	1993~2755
ASTM D882		TD (MPa)	1964~2568	
THERMAL	Melting Point	ISO11357	°C	343
	Coefficient of Thermal Expansion	ISO11359 (< Tg)	ppm/K	55~60
	Glass Transition Temperature	ISO11357	°C	143
ELECTRICAL	Dielectric Strength (25μm)	ASTM D149	KV/mm	150
	Volume Resistivity @25°C,50%RH	ASTM D257	Ω·m	10 <sup>16</sup>
	Dielectric Constant	ASTM D150 (50MHz)		3.12~3.3
	Loss Tangent	ASTM D150 (50MHz)		0.004~0.005

★ Note: The above data are test results of 0.15 mm films from our laboratory, for reference only and not to be used as acceptance criteria.

## Key Properties of PEEK Film/Sheet

01



### High and Low Temperature Resistance

It is a high- and low-temperature resistant thermoplastic resin with a melting point of 343°C. The long-term service temperature approved by UL is 260°C, and it maintains high strength even at -198°C.

02



### Excellent wear resistance and self-lubrication

It has extremely low wear loss and outstanding self-lubricating properties.

03



### Excellent insulation performance

It maintains excellent insulation and stability under high temperature, high pressure, high frequency, high speed, and high humidity conditions.

04



### Corrosion Resistance

Among common chemicals, only concentrated sulfuric acid can dissolve or damage it, and its corrosion resistance is comparable to that of nickel steel.

05



### Good Radiation Resistance

It has excellent resistance to various types of radiation.

06



### Good Flame Retardancy

PEEK films of certain thickness are self-extinguishing, producing low smoke and non-toxic combustion products.

07



### Hydrolysis Resistance

It has low water absorption (0.04%) and can be used for long periods in steam at 200°C.

08



### Good Flexibility

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