



TCP®200-18-02A is made by uniformly dispersing thermally conductive fillers in a polymer matrix, successfully combining the excellent mechanical properties and processing convenience of engineering plastics with active heat dissipation capabilities. Compared to ordinary plastics, it can transfer and distribute heat more effectively; compared to metals, it has advantages such as being lightweight, electrically insulating, corrosion-resistant, and offering a high degree of design flexibility.

Features

- » Even heat dissipation, preventing hotspots and reducing local deformation of parts due to high temperatures
- » Lightweight, lighter than aluminum
- » Easy to mold and process, no secondary processing required
- » High flexibility in product design

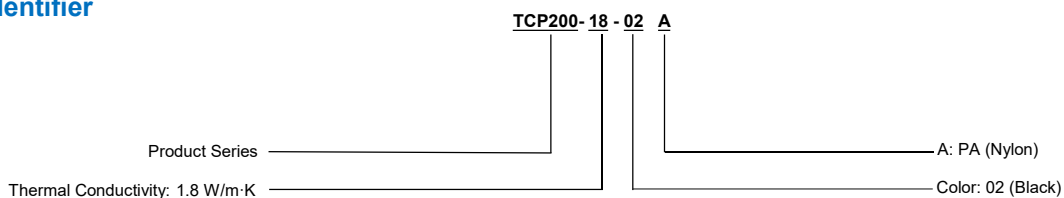
Applications

- » Heat dissipation housing for LED bulbs and spotlights, light engine substrates
- » Insulation brackets and housings for battery management systems
- » Housings for charging equipment
- » Insulation brackets and sensor housings for motor drivers, electrical junction boxes

Typical Properties of TCP®200-18-02A

Property	Value	Test Method
Color	Black	Visual
Construction	Nylon	-
Melt Index (g/10min)	150	ASTM D1238
Density (g/cm ³)	1.45	ASTM D792
Shrinkage (%)	0.3~0.5	ASTM D955
Tensile Strength (MPa)	55	ASTM D638
Flexural Strength (MPa)	70	ASTM D790
Flexural Modulus (MPa)	9000	ASTM D790
Notched Izod Impact (KJ/m ²)	4.5	ASTM D256
Dielectric Breakdown Voltage (V/mm)	≥5500	ASTM D149
Dielectric Constant @1MHz	2.5	ASTM D150
Volume Resistivity (Ohm·cm)	8.0×10 ¹²	ASTM D257
Heat Deflection Temperature (°C)	180	ASTM D648
Vicat Temperature (°C)	170	ASTM D648
Thermal Conductivity (Through-plane) (W/m·K)	1.8	ASTM D5470
Flame Retardant Rating	V-0	UL94 (E331100)

Product Identifier



Product Specifications

TCP®200 is provided in polyethylene granular bags, each containing 25 kilograms. If you would like to learn about products in different specifications, please contact our company.

If you want to learn more about thermal conductive materials, please visit our company's website.

Global solutions: Local support

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Application Guide:

Recommended Injection Parameters of TCP®200-18-02A		Numerical Range
Material Barrel Temperature	One Section (°C)	230-250
	Second Section (°C)	245-260
	Three Section (°C)	245-260
Nozzle Temperature (°C)		240-260
Melt Temperature (°C)		245-260
Drying Material Temperature (°C)(4h)		90-120
Mold Temperature (°C)		80-100
Injection Molding Pressure (Bar)		According to Machine Tonnage
Injection Molding Speed (mm/s)		Medium Speed
Note: The above data comes from our company's laboratory and is for reference only; it cannot be used as a product standard.		

Safety and Handling Matters:

1. Ventilation Requirements

In accordance with correct operating procedures, the plastic processing area must be maintained with adequate ventilation. When the temperature of the plastic exceeds its melting point during processing, it may release fumes containing decomposition products. Such fumes can be irritating.

Routine Operation: Under most circumstances, maintaining good general ventilation is sufficient.

Special Cases: When fume concentration is high or ventilation is inadequate, a local exhaust ventilation (LEV) system should be used.

2. Personal Protective Equipment (PPE)

Eye Protection: Safety goggles must be worn if there is a risk of eye injury from airborne particles during operation.

Hand Protection: When handling this resin, heat-resistant gloves or chemical-resistant gloves are recommended for high-temperature operations or to prevent chemical contact.

3. General Guidelines

TCP®200 must always be handled and used in accordance with good industrial hygiene and safety practices.

4. Information Access

For more detailed safety information, please refer to the Product Safety Data Sheet (SDS).

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