

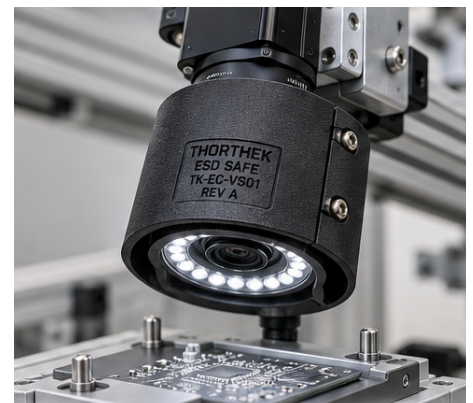
THOR~~THE~~K CM (THAILAND) CO., LTD.

ENGINEERED FOR ELECTRONICS EQUIPMENT

ESD Machine Components

Brackets. Covers. Guards.

Custom-fit parts with a controlled material and traceable identity.



PARK & IDENTIFY

CONNECTOR DOCK

PROTECT & ACCESS

SENSOR GUARD

MANAGE STRAY LIGHT

VISION SHROUD

PETG-ESD MATERIAL PLATFORM

Application-specific geometry / Integral marking / Qualification support

Product visualisations show proposed designs. Final geometry and ESD performance are confirmed for the ordered configuration. ESD SAFE markings shown are subject to qualification.

01 / SELECT YOUR APPLICATION

Small parts. Defined functions.

Three configurable designs for equipment builders and maintenance teams.

CD01



Connector Parking Dock

TK-EC-CD01-PETG

Organise disconnected connectors at service and changeover points. Numbered parking positions support repeatable handling.

Configure: Connector body profile; number of positions; cable bend clearance; mounting centres.

Cradle the insulating connector body. Keep contacts clear of the ESD material.

SG01



Sensor Guard

TK-EC-SG01-PETG

Provide a physical guard around a sensor while retaining the required optical opening and service access.

Configure: Sensor model; sensing window; cable exit; adjustment access; mounting interface.

Verify sensing performance and collision clearance on the installed machine.

VS01



Vision / Light Shroud

TK-EC-VS01-PETG

Create a shaped cover around a camera or light to help manage unwanted light paths in the inspection station.

Configure: Camera and lens envelope; light diameter; field of view; working distance; ventilation.

Confirm image quality, temperature and access. Optical benefit depends on the installation.

Illustrations are concept renders. Connectors, sensors, cameras, lights and machine frames are shown for application context and are not included unless quoted.

02 / MATERIAL PLATFORM

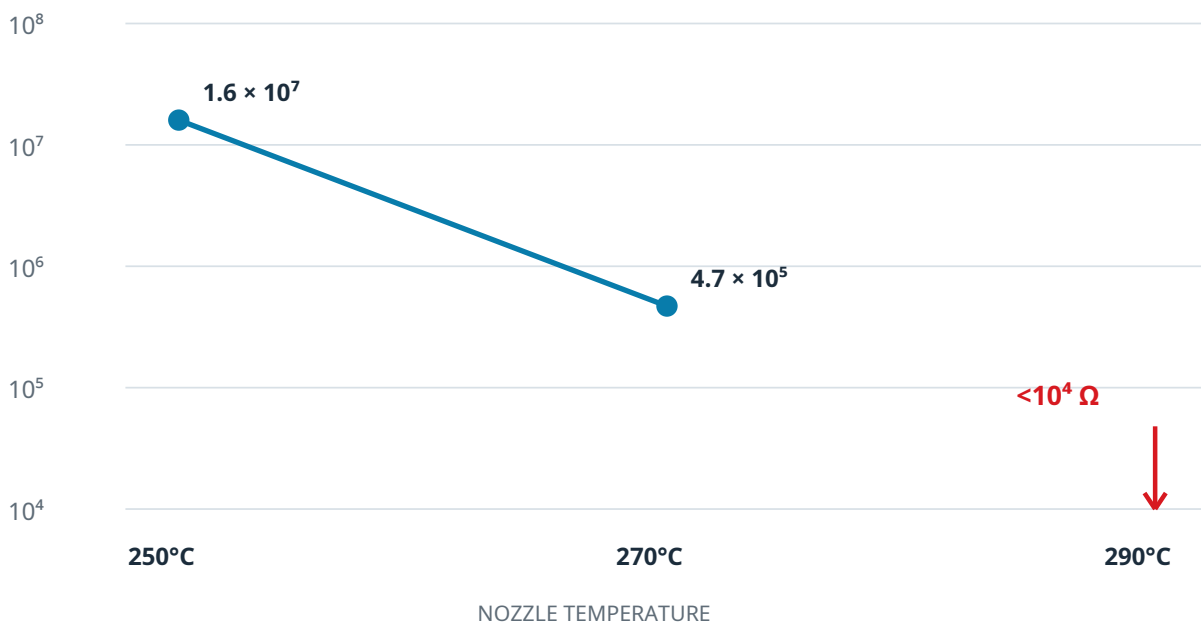
PETG-ESD. Process controlled.

Reference material: Fiberon™ PETG-ESD by Polymaker. THOR**THEK** is the finished-part brand.

PROPERTY	MATERIAL REFERENCE
Material / process	PETG with carbon nanotubes / FFF 3D printing
Reference density	1.24 g/cm ³ at 23°C
Heat deflection temperature	72°C at 1.8 MPa; 76°C at 0.45 MPa (ISO 75)
Reference flame classification	HB at 1.5 mm, as stated in the material TDS
Published nozzle / bed range	250-290°C / 70-80°C

PRINT TEMPERATURE CHANGES ELECTRICAL BEHAVIOUR

Surface resistivity (Ω), logarithmic scale



TDS specimen orientation: 0°. Values: $(1.6 \pm 0.3) \times 10^7 \Omega$ at 250°C; $(4.7 \pm 0.8) \times 10^5 \Omega$ at 270°C; $<10^4 \Omega$ at 290°C. Arrow denotes a reported upper limit, not an exact data point. Units follow the supplier TDS.

Material values are typical reference data, not finished-part acceptance limits. HDT is not a continuous-use temperature rating. Final part geometry, print settings and test conditions determine application performance.

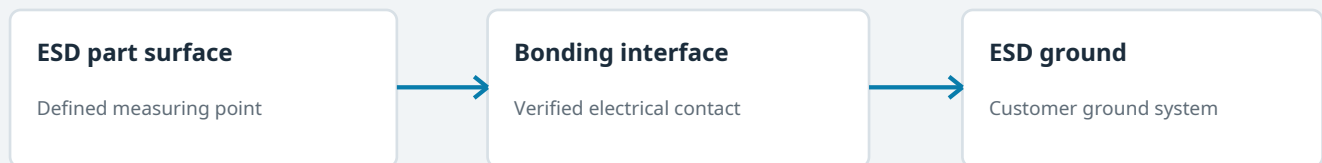
Source: Polymaker / Fiberon PETG-ESD Technical Data Sheet V1.1 ([click to open](#))

03 / ENGINEERING THE FINISHED PART

Fit. Grounding. Verification.

Define the mounting interface and the ESD function together.

FUNCTIONAL GROUNDING CONCEPT



Check the complete electrical path after installation. Painted or anodized interfaces can interrupt contact; a mounting screw alone does not demonstrate a valid ground path.

CONFIGURATION CHECKS

ITEM	RELEASE REQUIREMENT
Mechanical fit	Confirm dimensions, tolerance, load, fastener torque, cable clearance and service access.
Electrical performance	Agree test method, electrodes, voltage, dwell time, humidity, temperature and limits for the actual part.
Installed condition	Check point-to-point and resistance-to-ground where applicable; document the bonding arrangement.
Cleaning / cleanroom	Assess actual cleaner, wipe cycles, surface wear and particle release against the site criteria.

ESD CONTROL

Dissipative material supports charge control when integrated into the agreed ESD system. It is not an electrical insulation barrier.

COVER / GUARD / SHROUD

These names describe a physical function. Discharge shielding, EMI shielding and safety-guard performance require separate validation.

Grounding context: EOS/ESD Association, ESD Fundamentals, Part 2. No site approval is implied.

04 / CONFIGURE YOUR COMMERCIAL PART

One identity. Repeatable supply.

From an approved interface drawing to an identifiable replacement part.

PART IDENTIFICATION

THOR**THEK** / TK-EC-SG01-PETG

REV A • LOT [production lot] • ESD SAFE [after qualification]

Specify integral raised or recessed branding and model identification. Keep markings outside critical contact, optical and cleaning surfaces. Agree character size and depth on the controlled drawing.

ORDERING RANGE

BASE MODEL	PRODUCT	CONFIGURATION INPUT
TK-EC-CD01-PETG	Connector parking dock	Connector / channel layout
TK-EC-SG01-PETG	Sensor guard	Sensor / mounting layout
TK-EC-VS01-PETG	Vision / light shroud	Optical / mounting layout
CUSTOM	Bracket, cover, cable guide	Customer interface drawing

Base models identify the product family. Final order codes must identify the approved size or configuration and drawing revision. Dimensions, load capacity, temperature range, price and delivery are confirmed per order.

SUPPLY & QUALIFICATION PACKAGE

To quote: model, quantity, interface dimensions or CAD, mounting details, operating conditions, ESD acceptance criteria and cleaning requirements.

Release records: approved drawing, material grade and lot, controlled print process, inspection results and agreed electrical / cleaning reports.

Thorthek CM (Thailand) Co., Ltd.

CUSTOM ENGINEERING / OEM EQUIPMENT / MAINTENANCE PARTS