



Product Information

# Thermal + EMI Solution

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# Thermal Solution

## Product Image



Product images are for illustrative purposes only and may differ from the actual product.



## Composite Sheet

The composite graphite sheet is high in purity, resulting from application of Indong Electronics' ('IDE') IP protected extraction, purifying processing of the by-product carbon sludge at steel mills. Our patented processing technology not only reduce manufacturing costs significantly also enhances thermal conductive efficiency. It is offered in roll types and is superior to natural graphite in thermal management and can completely replace copper foil. (IDE proprietary/IP protected)

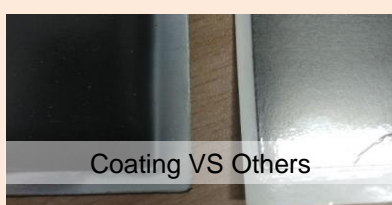
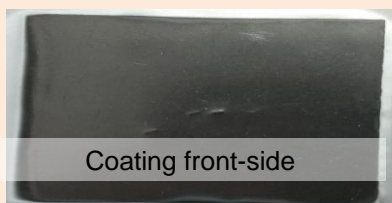
### ⚙️ Characteristics

- Completely replaces natural graphite / copper foil
- Superior thermal mgmt. 400~800W/mk (varies in thickness)

### ⚙️ Application

- Display, smartphone, computer, tablet PC
- Electronic device, LED (OLED), IOT device
- Telecommunications equipment, automotive equipment
- Power converter, power supply, medical devices/equipment
- Home electronics and any device / equipment with excessive heat energy release

## Product Image



## Composite Sheet + Edge Coating

IDE proprietary solution that allows effective and cost efficient installation at the manufacturing level while maximizing the thermal conductivity function. (※ patent pending)

### ⚙️ Advantages

- Eliminates the burden of multi-layering of bonding / double-taping (significant cost reduction)
- Ease and facilitate 2nd stage processing and product embedment (reduced processing costs)
- Maximizes heat dissipation rates and efficiency while allowing thickness control

### ⚙️ Application

- Smartphone, Smart TV, Table PC, Laptop, set-top box, black-box, navigation, LED lighting

# Thermal+EMI Solution

## Product Image



## Flexible Sheet

IDE's proprietary cutting-edge Composite Sheet + EMI shielding technique that allows significant improvements in graphite utilization. Accurate Cu Mesh substrate layering technology applied to production, this sheet offers product manufacturers multiple benefits in installation and effective management of heat dissipation. (※. Patent pending)

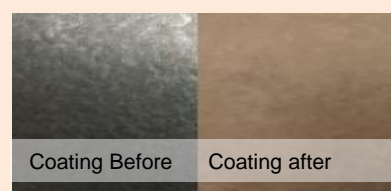
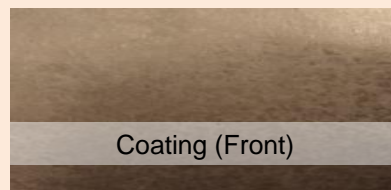
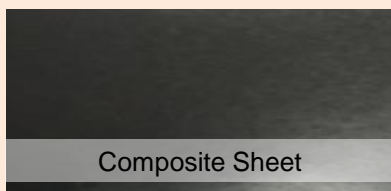
### ⚙️ Characteristics

- Complements shortcomings of conventional Graphite series (tensile strength improvement)
- Maximizes heat dissipation function / EMI shielding function eliminating the unnecessary adhesive layer
- Significantly enhances vertical thermal conductive efficiency

### ⚙️ Application

- Display, smartphone, computer, tablet PC
- Electronic device, LED (OLED), IOT device
- Telecommunications equipment, automotive equipment
- Power converter, power supply, medical devices/equipment
- Home electronics and any device / equipment with excessive heat energy release

## Product Image



## EMI Coating Sheet

IDE proprietary solution that allows effective and cost efficient installation at the manufacturing level while maximizing the thermal conductivity function. (※ patent pending)

### ⚙️ Advantages

- Eliminates the burden of multi-layering of bonding / double-taping (significant cost reduction)
- Ease and facilitate 2nd stage processing and product embedment (reduced processing costs)
- Maximizes heat dissipation rates and efficiency while allowing thickness control)

### ⚙️ Application

- Smartphone, smart TV, table PC, notebook, set-top box, navigation, automotive, LED displays

# Thermal Camera Test Data

Competitor's Cu + Artificial Graphite  
VS Competitor's Cu + Artificial  
Graphite + Cu



Competitor's Cu + Artificial Graphite  
VS INDONG ID-EF90



Competitor's Cu + Artificial Graphite  
VS INDONG ID-EF110



Competitor's Cu + Artificial Graphite  
VS INDONG ID-E60

