CCEWOOL®
INSULATION FIBER

AUTOMOTIVE THERMAL MANAGEMENT SOLUTIONS

Advanced Thermal Insulation & Passive Fire Protection for

- ICE Vehicles
- Hybrid Vehicles
- Electric Vehicles
- H_2 Hydrogen Vehicles

THERMAL PROTECTION | FIRE SAFETY | PERFORMANCE & EFFICIENCY | SUSTAINABLE SOLUTIONS

CCEWOOL®
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WHY THERMAL MANAGEMENT MATTERS IN AUTOMOTIVE SYSTEMS

Modern vehicles face increasing challenges from electrification, stricter emissions regulations, thermal safety requirements, lightweight design and space constraints.

CCEWOOL® Solutions Help:

Thermal Protection
Control heat transfer and protect critical components

Fire Protection
Delay thermal propagation and improve passive safety

Heat Retention
Maintain operating temperature for system efficiency

Component Protection
Shield electronics, polymers, and sensitive parts

System Efficiency
Improve performance, reduce energy loss

BATTERY PACK
Thermal runaway protection and insulation

TURBOCHARGER
High temperature protection and heat shielding

EXHAUST SYSTEM
Heat retention and thermal insulation

CATALYTIC CONVERTER
Maintain efficiency and reduce emissions

ECU
Protect electronics from heat exposure

WIRING HARNESS
Prevent heat damage to electrical systems

FUEL CELL (FOR FCEV)
Thermal management for fuel cell system

BRAKE SYSTEM
High temperature resistance and friction stability

HEAT SHIELD
Reduce radiant heat and protect surroundings

LIGHTWEIGHT | SAFE | EFFICIENT | SUSTAINABLE

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TYPICAL AUTOMOTIVE APPLICATIONS

CCEWOOL® advanced thermal solutions are widely used in key automotive systems to improve thermal performance, ensure safety, reduce emissions and support lightweight design.

Turbocharger
High temperature protection and heat shielding

Exhaust Manifold
Thermal insulation and heat shielding

Catalytic Converter
Heat retention and efficient emission conversion

DPF / GPF
Thermal insulation and heat management

SCR System
Thermal protection and heat retention

Battery Pack
Thermal runaway protection and insulation

ECU / Power Electronics
Heat protection for electronic components

Wiring Harness
Thermal insulation and protection

Fuel Cell (For FCEV)
Thermal management for fuel cell system

Brake System
High temperature resistance and friction stability

Heat Shield
Reduce radiant heat and protect components

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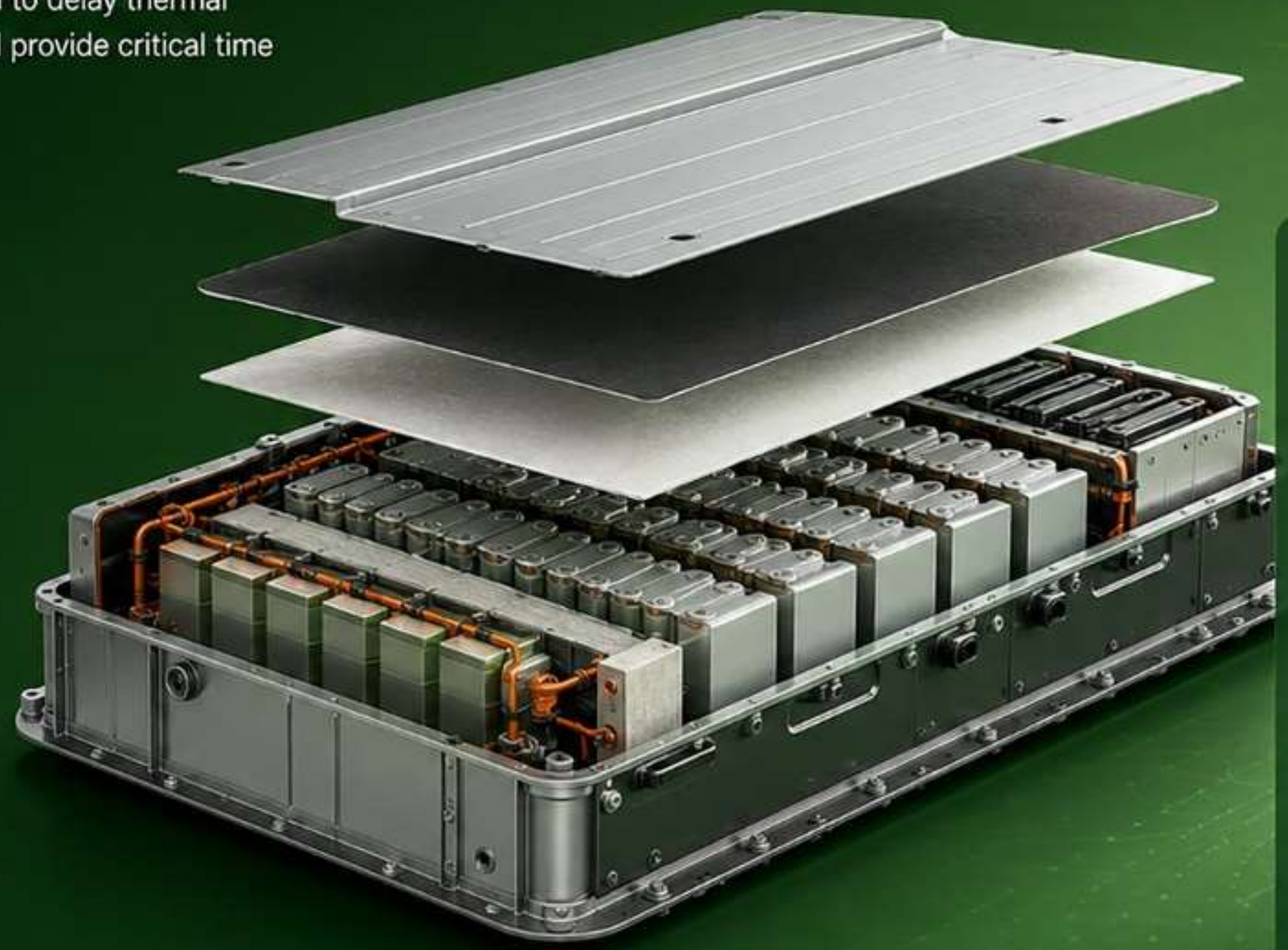
EV BATTERY THERMAL RUNAWAY PROTECTION

Passive fire protection solutions designed to delay thermal propagation, enhance battery safety, and provide critical time for active safety systems to respond.



KEY APPLICATIONS

Cell-to-Cell Barrier
Reduce heat transfer and delay thermal propagation between cells.

Module-to-Module Barrier
Minimize the risk of thermal propagation across modules.

Battery Pack Lining
Insulate the battery pack enclosure to improve passive fire protection and structural safety.

Venting Area Protection
Protect venting paths and surrounding structures from high-temperature gas and flame.

RECOMMENDED PRODUCTS

PCW Paper
Lightweight, flexible, and high temperature resistant barrier material.

PCW Ultra-Thin Blanket
Ultra-thin design for space-constrained applications with excellent insulation.

Ceramic Fiber Paper
High temperature stability and good thermal insulation performance.

Microporous Board
High thermal resistance in limited thickness, ideal for pack lining and thermal barrier.

CORE BENEFITS

- Delay Thermal Propagation
- Lightweight Design
- High Temperature Resistance
- Enhance Passive Fire Protection
- Buy Critical Time for Safety Response

BATTERY PACK PASSIVE FIRE PROTECTION

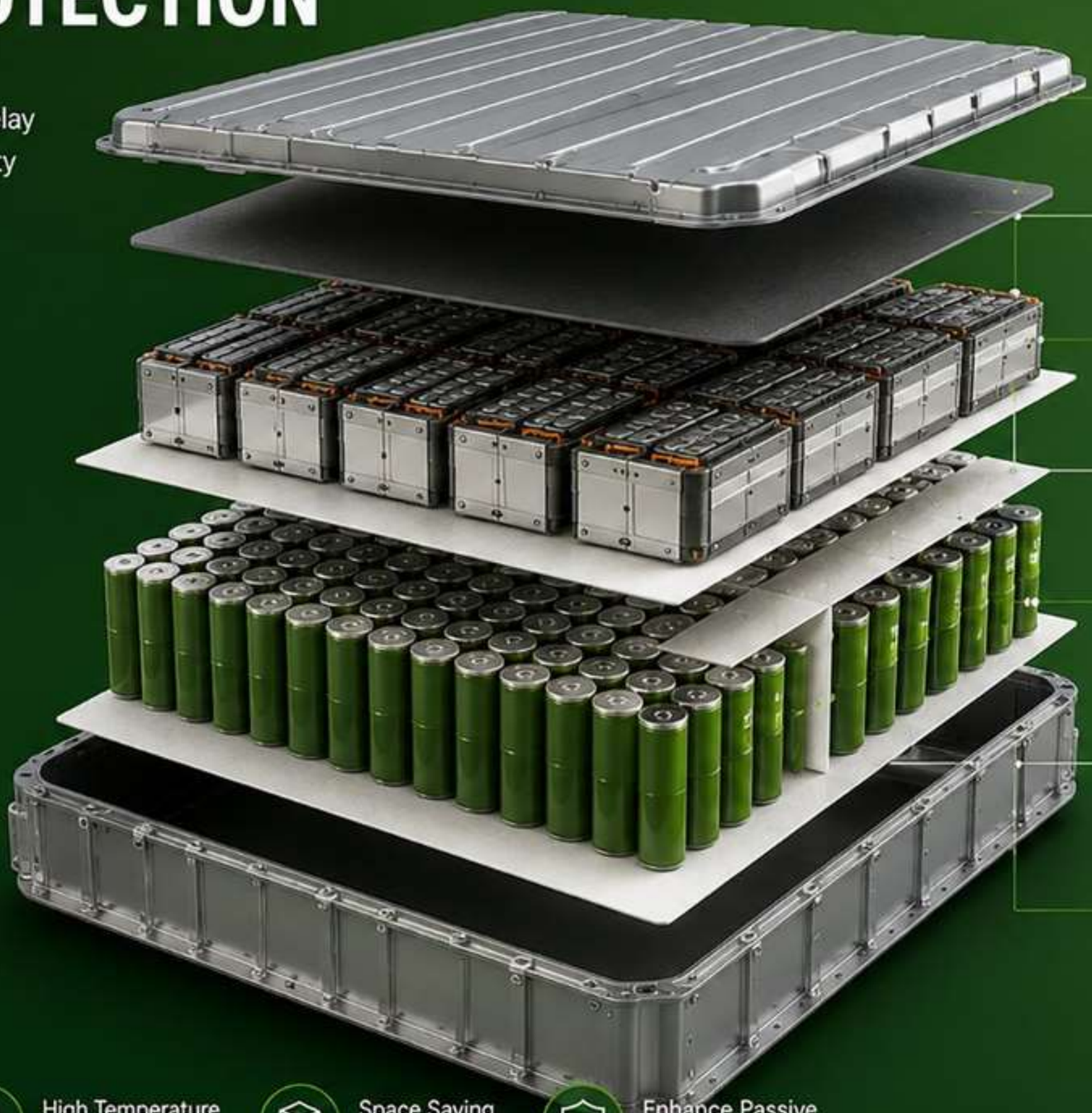
Multi-layer thermal barrier solutions designed to delay thermal propagation and enhance the passive safety of EV battery systems.

DESIGN AT EVERY LEVEL

CELL LEVEL
Cell-to-cell barrier reduces heat transfer and delays thermal propagation.

MODULE LEVEL
Module-to-module barrier minimizes the risk of thermal propagation across modules.

PACK LEVEL
Insulate the battery pack enclosure to improve passive fire protection and structural safety.



KEY BENEFITS

- Delay Thermal Propagation
- Lightweight Solution
- High Temperature Resistance
- Space Saving Design
- Enhance Passive Fire Safety

CCEWOOL® INSULATION FIBER

AUTOMOTIVE HEAT SHIELD SOLUTIONS

Advanced thermal barrier materials and engineered heat shield solutions to protect critical components, reduce radiant heat, and support compact design in modern vehicle platforms.

KEY APPLICATIONS

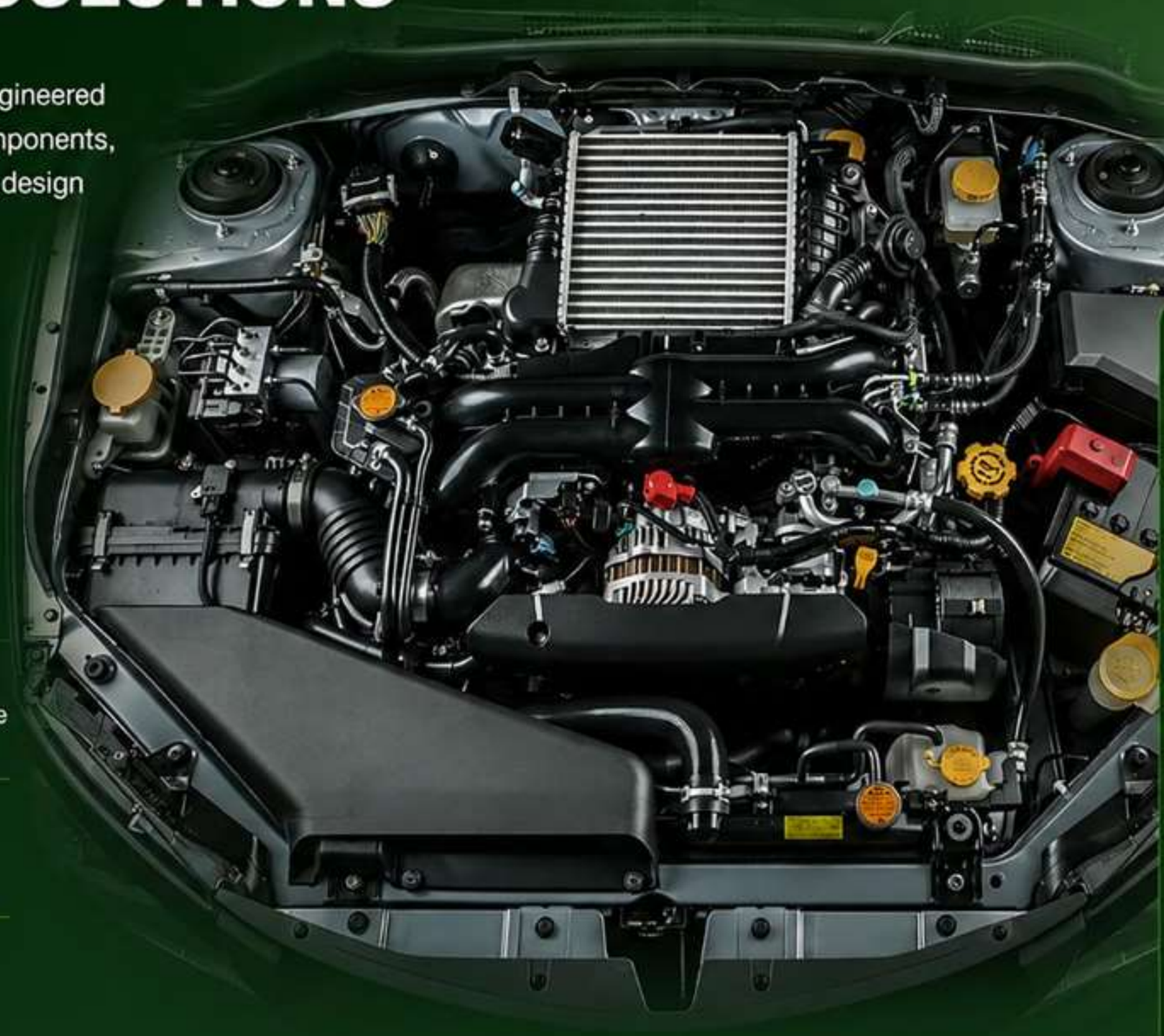
TURBOCHARGER
Reduce radiant heat to protect surrounding components.

EXHAUST MANIFOLD
Lower surface temperature and improve thermal efficiency.

CATALYTIC CONVERTER
Maintain stable operating temperature and protect nearby parts.

ENGINE COMPARTMENT
Protect wiring, sensors, and plastic components from heat exposure.

UNDERBODY PROTECTION
Reduce heat transfer to chassis and improve passenger comfort.



RECOMMENDED PRODUCTS

Microporous Board
High thermal resistance in limited thickness, ideal for heat shields and compact spaces.

Ceramic Fiber Paper
Lightweight, flexible and easy to form for complex heat shield structures.

Ceramic Fiber Gasket
Provide sealing and thermal insulation for interfaces and connection points.

KEY BENEFITS

- Reduce Radiant Heat
- Protect Sensitive Components
- Lightweight & Space Saving
- High Temperature Resistance
- Improve System Reliability
- Support Compact Design

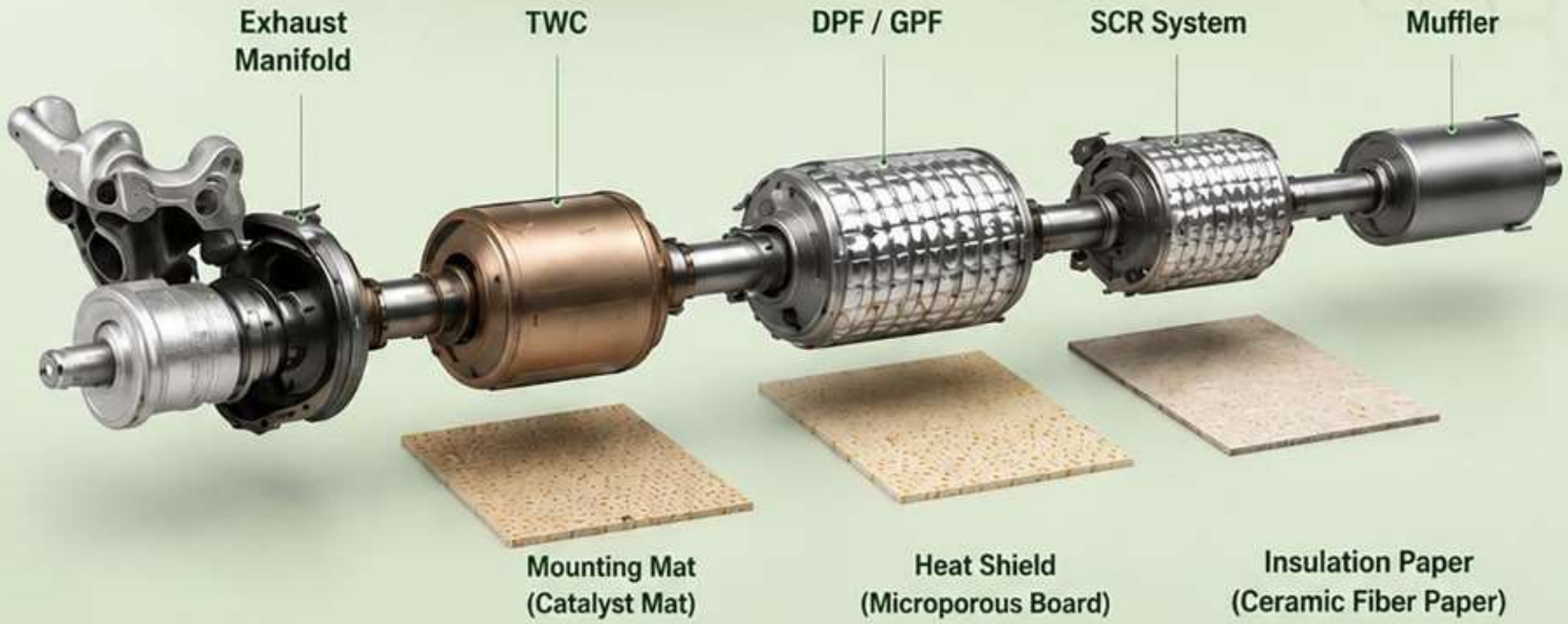
EXHAUST INSULATION & EMISSION CONTROL

CCEWOOL® INSULATION FIBER

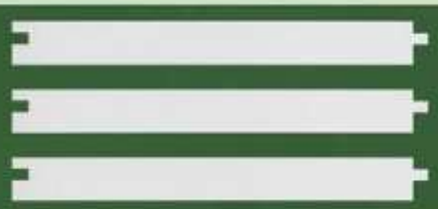
Maintain exhaust temperature for optimal after-treatment performance and reduce heat impact on surrounding parts.

APPLICATIONS

- **TWC** (Three Way Catalyst)
- **DOC** (Diesel Oxidation Catalyst)
- **DPF** (Diesel Particulate Filter)
- **GPF** (Gasoline Particulate Filter)
- **SCR** (Selective Catalytic Reduction)
- **Muffler**



RECOMMENDED PRODUCTS



Mounting Mat (Catalyst Mat)
High temperature resistant mat for secure catalyst mounting and thermal insulation.

Heat Shield (Microporous Board)
High temperature resistant board for effective heat shielding and thermal protection.

Insulation Paper (Ceramic Fiber Paper)
Lightweight, flexible paper for thermal insulation and heat containment.

KEY BENEFITS

- Maintain Optimal Exhaust Temperature
- Improve After-treatment Efficiency
- Reduce Heat Impact on Surrounding Parts
- Enhance Emission Control Performance
- Durable & High Temperature Resistant

BRAKE & FRICTION MATERIAL REINFORCEMENT

CCEWool® INSULATION FIBER

CCEWool® ceramic fiber friction wool is used as reinforcement in brake pads, linings and clutch facings to improve structural integrity and thermal stability.

APPLICATIONS

- Brake Pads
- Brake Linings
- Clutch Facings

PRODUCT

- Ceramic Fiber Friction Wool

KEY BENEFITS

- Thermal Stability
- Structural Reinforcement
- Wear Resistance Support
- Consistent Performance

Brake Pads

Brake Linings

Clutch Facings

Ceramic Fiber Friction Wool

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GASKETS, SEALING & LOCAL THERMAL PROTECTION

Flexible insulation materials for sealing, gasketing and local thermal protection in critical areas.

APPLICATIONS

- Exhaust Flanges
- Sensor Ports
- Heat Shield Interfaces
- Wiring Harness Protection
- Pipe & Hose Wrapping

RECOMMENDED PRODUCTS

- Ceramic Fiber Paper
- Ceramic Fiber Gasket
- Microporous Board

Flexible & Conformable | High Temperature Resistance | Sealing & Leak Prevention | Local Thermal Protection

CCEWOOL® INSULATION FIBER

HYDROGEN & FUEL CELL THERMAL MANAGEMENT

Advanced insulation solutions for thermal protection of fuel cell system and hydrogen components.

APPLICATIONS

- Fuel Cell Stack
- Air Compressor
- Hydrogen Circulation Components
- Power Electronics
- Exhaust System

RECOMMENDED PRODUCTS

- Microporous Board
- PCW Paper
- Ceramic Fiber Paper

Thermal Protection | High Temperature Stability | Corrosion Resistance | Lightweight Insulation | System Efficiency

RECOMMENDED AUTOMOTIVE PRODUCTS

CCEWOOL® INSULATION FIBER

Microporous Board

APPLICATION
- Heat Shield
- Exhaust Insulation
- Battery Protection

KEY BENEFIT
- High Insulation
- Low Thickness
- Lightweight

PCW Paper

APPLICATION
- Cell Barrier
- Module Barrier
- Pack Insulation

KEY BENEFIT
- Low Weight
- Flexible
- Easy to Cut

PCW Ultra-Thin Blanket

APPLICATION
- Cell-to-Cell Barrier
- Thermal Barrier
- Vent Protection

KEY BENEFIT
- Ultra-Thin
- Lightweight
- High Temp. Resistance

Ceramic Fiber Paper

APPLICATION
- Gasketa
- Local Insulation
- Heat Shield

KEY BENEFIT
- Flexible
- Easy to Install
- High Temp. Stability

Catalytic Converter Mounting Mat

APPLICATION
- TWC / DOC / DPF / GPF / SCR

KEY BENEFIT
- High Temperature
- Vibration Absorption
- Secure Fixation

Ceramic Fiber Friction Wool

APPLICATION
- Brake Pads
- Brake Linings
- Clutch Facings

KEY BENEFIT
- Thermal Stability
- Reinforcement
- Wear Support

High Temperature Performance | Lightweight Insulation | Environmental Friendly | Customized Solutions | Reliable Protection

CCEWOOL®
INSULATION FIBER

ADVANCED THERMAL MANAGEMENT SOLUTIONS FOR AUTOMOTIVE APPLICATIONS

Your trusted partner for safer, more efficient and sustainable vehicles.

- Global Project Experience
- Custom Fabrication Support
- Automotive Thermal Engineering
- Stable Global Supply
- OEM & Tier Supplier Support

GLOBAL PROJECT SUPPORT

Double Egret Thermal Insulation Co., Ltd

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Zones Zibo, Shandong, 255000

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U.S. WAREHOUSE STOCK SUPPLY & LOCAL PROJECT SUPPORT

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- Reliable Solutions
- Sustainable Innovation
- Global Partnership
- Quality Assurance
- Responsive Service