

# TECHNICAL PROFILE

2024/2025



Advanced Technology Innovation Co.



# PRODUCT INFORMATION

Thermocase products are designed considering the requirements of our clients. Each piece of our Thermocase insulation is uniquely developed to fit each component, thus meeting our and clients' standards of aesthetics and usability. The peculiarities of steam, hot water, and condensate and the climate conditions surrounding each element in the factory are also taken into consideration.

## **The following materials are used to produce the product:**

Silicone/ PTFE cloths - This material can withstand temperatures up to +250°C / +482°F  
Kevlar or aramid thread (can withstand temperatures up to +210°C / +410°F)  
Stone wool insulation (can withstand temperatures up to +220°C / +428°F)  
Ceramic fiber insulation (can withstand temperatures up to +1260°C / +2300°F)  
Stainless steel snap fasteners

# PRODUCT INSULATION MATERIALS

We are using two types of Insulation Materials

- Silicon
- PTFE

**Silicone** is not resistant to hydrofluoric acid, sulfuric acid, nitric acid, and some types of industrial oils.

## Silicone is resistant to

|                       |                     |                    |
|-----------------------|---------------------|--------------------|
| Acetamide             | Acetic acid         | Ammonium hydroxide |
| Aniline               | Ball bearing fat    | Brake fluid AT     |
| Calcium hydroxide     | Carbolineum         | Clophene           |
| Compressor oil, light | Glycerin            | Potassium          |
| Prestone              | Salt                | Mineral oil        |
| Sodium                | Soda                | Nitrobenzene       |
| Olive oil             | Phenol              | Phosphoric acid    |
| Castor oil            | Hydrochlorid acid   | Sulfuric acid      |
| Tri glycol            | Vaseline            | Water              |
| Hydrogen peroxide     | Hydrogen superoxide |                    |

## PTFE is resistant to

|                     |                   |                      |
|---------------------|-------------------|----------------------|
| Water               | Hydrofluoric acid | Fuming sulfuric acid |
| Chlorosulfuric acid | Chlorine gas      | Hydrogen Peroxide    |
| Acid Chlorides      | Nitric Acid       | Alcohols             |
| Esters              | Ketones           | Aromatic Solvents    |
| Amines              | Oxidizers         | Industrial oils      |

**PTFE** is not resistant to molten alkali metals, chlorine trifluoride, and gaseous fluorine at elevated temperatures and pressures



## CHARACTERISTICS OF THE SILICONE COATING LAYER INCLUDE



### Integrity

High resistance to mechanical damages



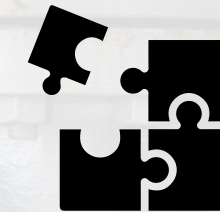
### Long service life

Long service life (7-10 years).



### Safety

Fire resistance



Flexibility (while operated prevents any creases on the surface of the product and as a result prevents dust sedimentation in the folds of the product)

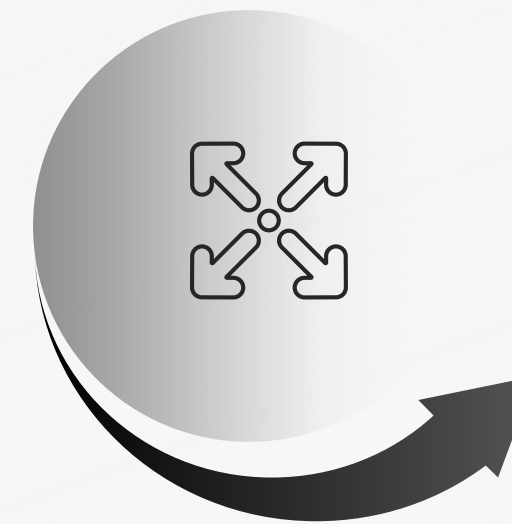
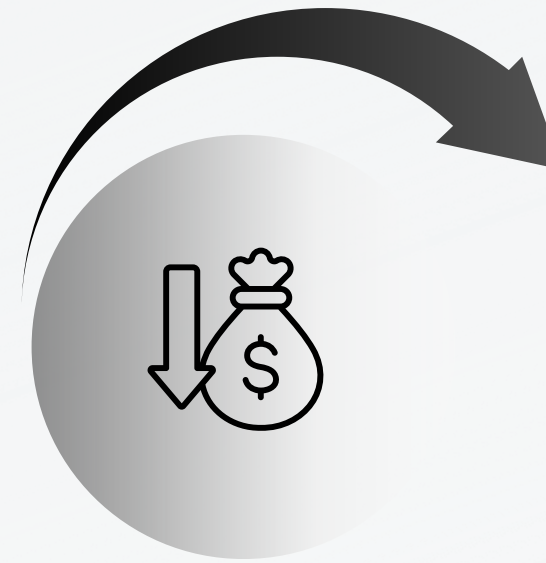
# Benefits of Insulation Jackets

## 2. Enable Periodic Maintenance

Unlike traditional hard insulation, thermocase Jackets' removable insulation makes it easy to inspect and maintain valves, pipes, and equipment.

## 4. Extend the Life of Equipment & Machinery

One of the many ways our removable insulation covers can save you money is by helping extend the lifespans of equipment and machinery, thereby reducing depreciation costs and long-term operating expenses.



## 1. Reducing Energy Costs

Choose thermocase Jackets or Removable Insulation Jackets to Improve Energy Efficiency & Reduce Costs!

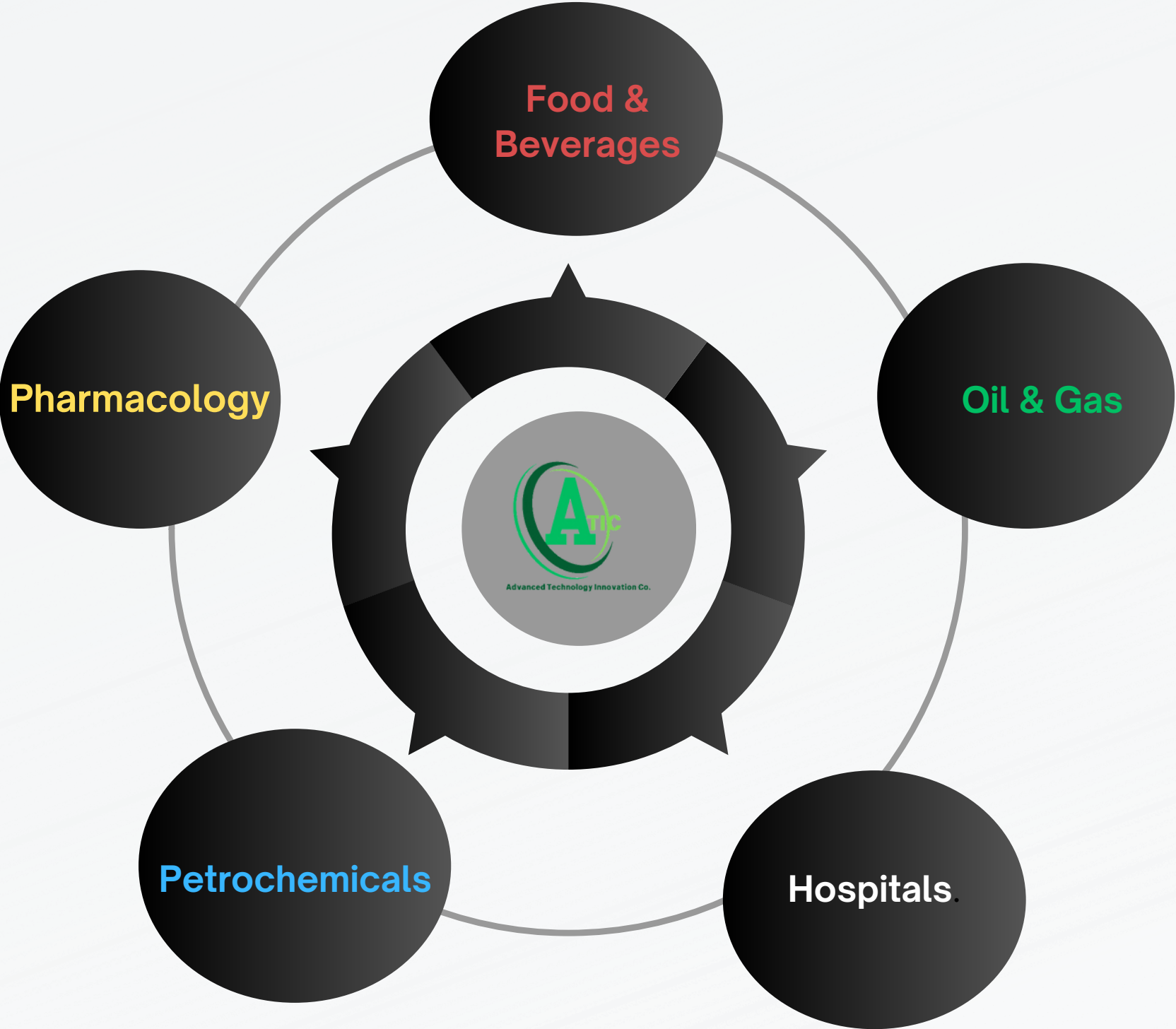
## 3. Prevent Waste & Excess Cost of Hard Insulation

With a removable thermocase Jacket, you can remove the insulation whenever necessary and easily reinstall it. Hard insulation can contribute to waste and additional costs through removal and re-installation costs and gaps in insulation

## 5. Improve Workplace Safety

thermocase jacket ' removable insulation solutions can help address workplace safety issues such as wet floors, dangerously high-temperature surfaces, the threat of hot steam, and more.

# THE INDUSTRY CAN USE THE THERMOCASE



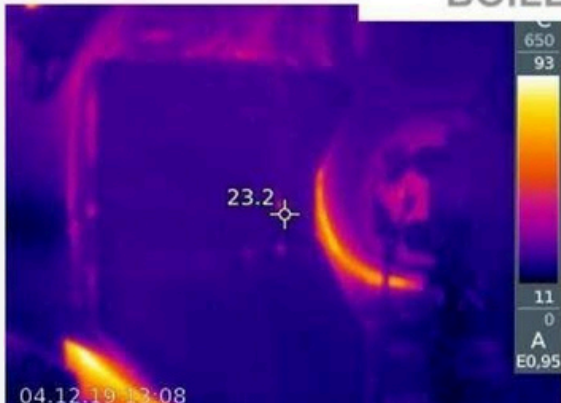
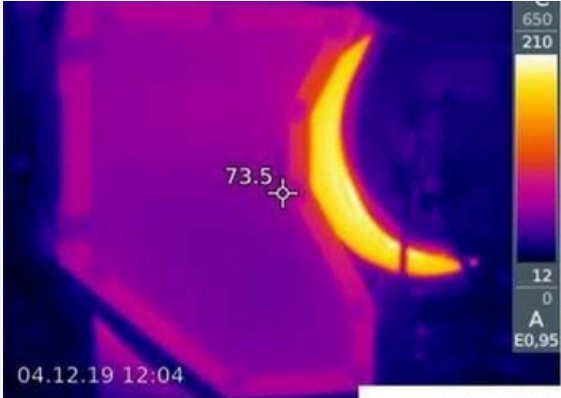
## Clients Globally.



PHILIP MORRIS  
INTERNATIONAL



# Product Technical Modules



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