



# PROJECT PORFOLIO

## Transportation Industries





At the APM workshop, materials meet designers, engineers, fabricators and installers. Together, we transform materials and supporting materials into ultra-performing panels, structural parts, and components. We select the finest quality materials and components to produce products and solutions for the transportation industry's super-structural and structural thermal and noise insulation projects. As experienced professionals in the field, we understand each project is unique, and because of that, we select materials and components based on project specifications and technical requirements. No matter the project's complexity, we have the materials and expertise to complete the project successfully.



**At APM, we offer our clients a complete turnkey solution from materials selection to design, fabrication, testing, certification, and installation.**

We offer a range of structural, thermal, and noise insulation products and solutions for transportation and heavy industries. The materials and associated components used in various development projects are sustainable, lightweight, fire retardant, and 100% recyclable. Most of the structural core materials used in our products and solutions are manufactured in-house, and

the necessary supporting materials are sourced domestically, depending on the project specification and scope of work. Because of that, we can meet the highest quality and safety standards for any project. APM offers products and solutions that meet necessary industry standards and requirements.

# PRODUCTS & SOLUTIONS:

## Structural thermal insulation project

- ✔ Custom cutting and fabrication of design-specific structural thermal insulation panels, parts, and components from PU, PIR, and PVC foam core sheets and boards for rail car, train, and bus interior and exterior construction projects.
- ✔ Aluminum laminated PU and PIR foam core-based structural thermal insulation panels, parts, and components—project-specific custom cutting and fabrication of thermal insulation panels, components, and large structures.
- ✔ Custom fabrication and mass production of PET and PP laminated Cellulose, PU, and PIR foam core-based structural thermal insulation panels and large structures for rail car and train interior and exterior projects.
- ✔ Project-specific custom fabrication and mass manufacturing of PLA and biopolymer laminated PU, Cellulose, and PIR foam core-based interior structural thermal insulation panels and components.
- ✔ Custom manufacturing of glass fiber and carbon fiber laminated cellulose, PU, and PIR foam core-based thermal insulation sandwich composite panels and structures for rail car, train, and bus interior and exterior construction projects.
- ✔ Custom fabrication of HPL Phenolic laminated PU and PIR foam core-based structural thermal insulation panels and large structures for interior projects.
- ✔ Thermoforming and mass production of structural insulation body parts and components.



- ✔ Structural insulation materials testing, standardization, and certification according to local standards.



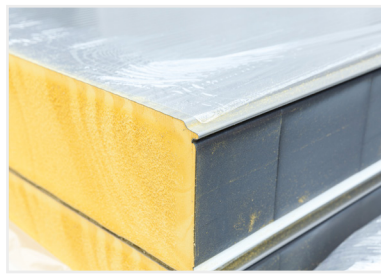


## Material Specification:

- ✔ 100% recyclable and sustainable.
- ✔ Minimum carbon footprint, sustainable materials processing.
- ✔ Lightweight, excellent strength-to-weight ratio.
- ✔ Exceptional mechanical and physical strength.
- ✔ Ultimate thermal and heat insulation.
- ✔ Excellent temperature and pressure stability.
- ✔ Standardized flame and smoke retardancy.
- ✔ No water and moisture absorption.
- ✔ Excellent UV stability.
- ✔ Extreme weather resistant.
- ✔ Excellent service life.
- ✔ Meet EPA sustainability standards.
- ✔ EPD, LCA, and DNV-GL certified.
- ✔ Meet US, Canada, and EU regulatory requirements.
- ✔ Easy installation and minimum maintenance.
- ✔ Excellent physical stability in hot and cold environments.
- ✔ Manufactured in USA.



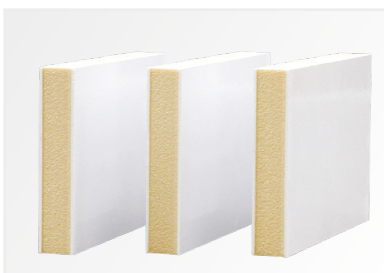
**Thermal insulation material**  
PU/PIR foam sheet



**Thermal insulation panel**  
Aluminum laminated PIR



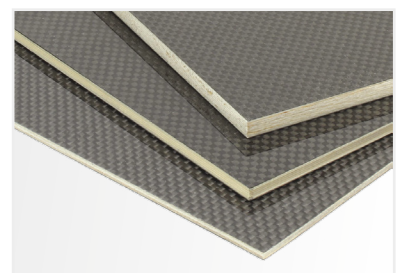
**Thermal insulation panel**  
Polyester film laminated PIR



**Thermal insulation panel**  
PET laminated PU/PIR



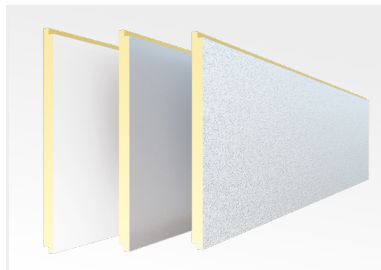
**Thermal insulation panel**  
PP laminated PIR



**Thermal insulation panel**  
Carbon fiber-foam  
composite



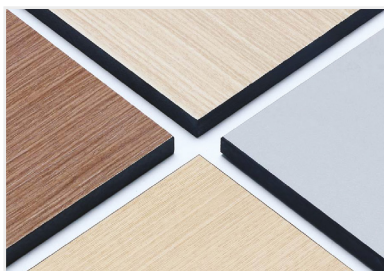
**Thermal insulation panel**  
HPL Phenolic-foam  
composite



**Thermal insulation panel**  
Thermoplastic laminated PIR



**Thermal insulation panel**  
HPL laminated PU



**Thermal insulation panel**  
HPL laminated cellulose  
foam



**Thermal insulation panel**  
Plywood-foam composite



**Thermal insulation panel**  
PIR-Plywood-HPL composite



# PRODUCTS & SOLUTIONS:

## Structural noise and acoustic insulation project

- ✔ Custom cutting and fabrication of design-specific structural noise insulation panels, parts, and components from Wood fiber, Balsa, and Cellulose foam-based sheets and boards for rail car, train, and bus interior and exterior construction projects.
- ✔ Project-specific custom fabrication of Wood fiber, Balsa, and Cellulose foam-based noise, acoustic insulation panels, and large structures.



- ✔ Fabrication and mass production of Polyester film laminated fiberglass composite sheets and sandwich structures for interior sound insulation.
- ✔ Custom fabrication and manufacturing of Polyester and Fiberglass laminated Wood fiber, Balsa, and Cellulose foam core-based structural noise and acoustic insulation panels and large structures.
- ✔ Project-specific custom fabrication of Polyester film laminated PET, Cellulose, and PU foam core-based noise insulation panels and components.
- ✔ Custom fabrication and mass production of HPL Phenolic laminated Cellulose, wood fiber, and PET foam core-based sandwich composite acoustic insulation panels and components.
- ✔ Fabrication and mass manufacturing of PLA and biopolymer laminated Wood fiber, PU, and Cellulose foam core-based noise insulation panels and large structures.
- ✔ Custom fabrication and mass production of EVA-Cotton fabric laminated Wood fiber, Cellulose, and PET foam core-based sound insulation-absorption sandwich composite panels, parts, and components.
- ✔ Custom fabrication and mass production of Wood and Plywood laminated Wood fiber, Cellulose, and PET foam core-based sound insulation-absorption sandwich composite panels, parts, and components.
- ✔ Thermoforming and mass production of structural noise and acoustic insulation body parts and components.
- ✔ Structural noise and acoustic insulation materials testing, standardization, and certification according to local and industry standards.

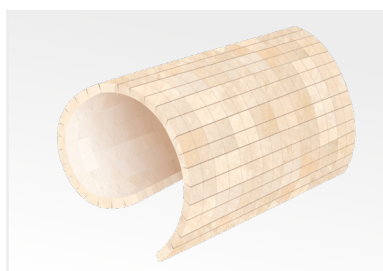


## Material Specification:

- ✔ 100% recyclable and sustainable.
- ✔ Minimum carbon footprint, sustainable materials processing.
- ✔ Exceptional mechanical and physical strength.
- ✔ Lightweight, excellent strength-to-weight ratio.
- ✔ Ultimate noise and acoustic insulation.
- ✔ No water and moisture absorption.
- ✔ Excellent thermal and heat stability.
- ✔ Extreme weather resistant.
- ✔ Standard fire retardancy.
- ✔ EPD, LCA, and DNV-GL certified.
- ✔ Meet US, Canada, and EU regulatory requirements and standards.
- ✔ Easy installation and minimum maintenance.
- ✔ Manufactured in USA.



**Noise blocking**  
Wood fiber sheet

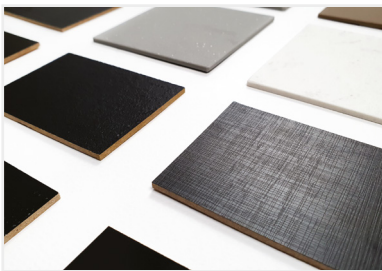


**Acoustic insulation**  
Balsa wood core



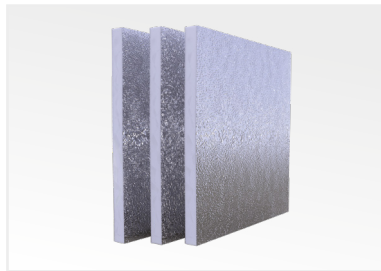
**Sound blocking**  
PET foam core





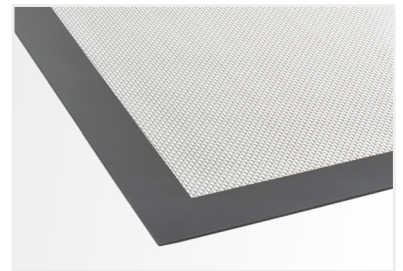
**Sound insulation/blocking panel**

Polyester film laminated wood fiber



**Acoustic insulation/blocking**

Polyester film laminated PET foam



**Sound blocking**

Polyester film laminated glass fiber



**Noise blocking/insulation**

Biopolymer laminated Balsa wood



**Sound insulation**

PLA laminated wood fiber



**Acoustic blocking**

Cotton laminated wood fiber



**Sound blocking**

Cotton laminated PET foam



**Noise blocking**

Wood fiber-foam composite



**Acoustic blocking**

HPL- wood fiber composite



**Sound blocking**

ceramic composite panel



# PRODUCTS & SOLUTIONS:

## Interior and exterior structural projects

- ✔ Custom cutting and fabrication of design-specific structural panels, parts, and components from HPL Phenolic, PU, PET, and PVC foam core sheets and boards for rail car, train, and bus interior and exterior construction projects.
- ✔ Fabrication and mass production of PET and PP laminated PVC, PET, and PU super-structural panels and large parts of any dimensions.
- ✔ Project-specific custom cutting, fabrication, and mass manufacturing of PLA and biopolymer laminated PU, Cellulose, PVC, and PET foam core-based super-structural structural panels for rail car and train interior projects.
- ✔ Custom fabrication and production of glass fiber and Carbon fiber laminated PU, PVC, and PET foam core-based super-structural sandwich composite panels and large structures for interior and exterior projects.
- ✔ Custom manufacturing HPL Phenolic laminated PU, PVC, PET foam core-based structural sandwich composite panels and large structures.
- ✔ Fabrication and mass production of Aluminum laminated PVC, PET, and PU structural composite panels and large parts of any dimensions.
- ✔ Thermoforming and mass production of super-strength structural body parts and components.
- ✔ Super-structural materials testing, standardization, and certification according to local standards.



## Material Specification:

- ✓ 100% recyclable and sustainable.
- ✓ Lightweight, excellent strength-to-weight ratio
- ✓ Minimum carbon footprint, sustainable materials processing.
- ✓ Remarkable tensile and compression strength.
- ✓ Exceptional mechanical and physical strength.
- ✓ No water and moisture absorption.
- ✓ Excellent thermal and heat stability.
- ✓ Extreme weather resistant.
- ✓ Standard fire retardancy.
- ✓ Excellent service life.
- ✓ EPD, LCA, and DNV-GL certified.
- ✓ Meet US, Canada, and EU regulatory requirements and standards.
- ✓ Easy installation and minimum maintenance.
- ✓ Excellent cold and hot weather resistance.
- ✓ Manufactured in USA.



**Structural material**  
High-density PVC foam board



**Structural core**  
Epoxy-coated Balsa wood



**Structural material**  
Aluminum pane



**Structural material**  
Phenolic panel

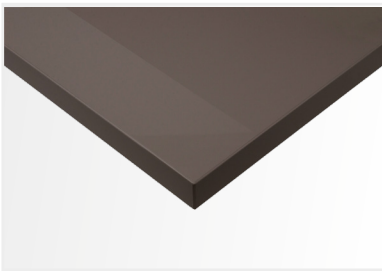


**Structural material**  
HPL laminated panel



**Structural panel**  
PP laminated PVC foam core





**Structural panel**

Biopolymer laminated wood panel



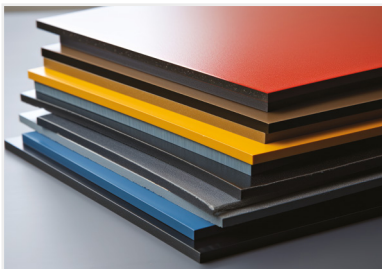
**Structural panel**

HPL laminated wood panel



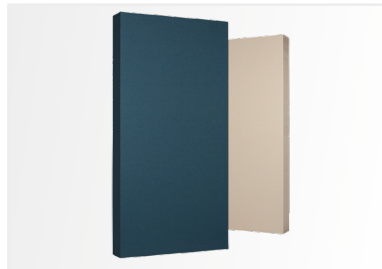
**Structural panel**

HPL laminated PET foam core



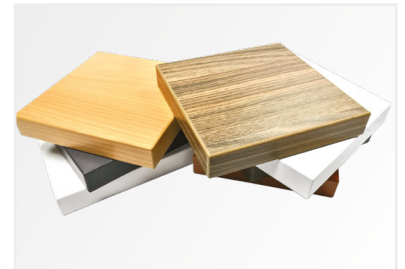
**Structural panel**

PET laminated PVC foam core



**Structural material**

PLA laminated PVC foam core



**Structural material**

HPL laminated PVC foam core



**Aluminum laminated**

PET foam core



**Structural material**


PVC foam core




## Contact:

### **Advanced Performance Materials (APM)**

66 West Flagler Street, Miami, FL 33130, USA.

 +1 786-776-4022

 [contact@advancedmaterialsus.com](mailto:contact@advancedmaterialsus.com)

[www.advancedmaterialsus.com](http://www.advancedmaterialsus.com)