

# TremLock® ThermalHE™

## Insulated Metal Panel



### FEATURES

Look of tilt-up concrete

### BENEFITS

- Super lightweight and cost-effective

### DESCRIPTION

TremLock ThermalHE is our insulated metal panel, flat panel offering. The TremLock ThermalHE gives the look of tilt-up concrete while offering unsurpassed thermal efficiency. In comparison to tilt-up concrete, the TremLock ThermalHE insulated panel is super lightweight and extremely cost-effective.

### BASIC USES

TremLock ThermalHE is a flat, insulated metal panel offering for use in exterior wall applications.

### SYSTEM DESIGN

TremLock ThermalHE panels are designed with a 42" coverage width. Available lengths of 8'-0" to 40'-0". Panel thickness options of 2, 2.5, 3, 4 inch. Exterior Gauge availability of 24 and 26. Interior gauge of 26. Exterior Substrate is Galvalume (registered symbol), G90. Interior substrate Galvalume (registered symbol), G90, Stainless Steel. Joint is offset double tongue-and-groove. Core is continuously poured-in-place polyisocyanurate insulating foam. R-Value is R-8 per inch of thickness (nominal.)

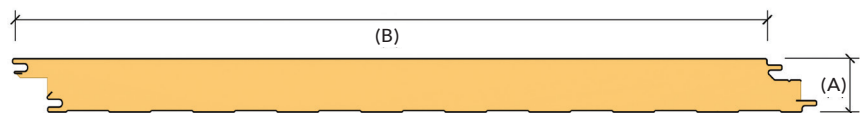
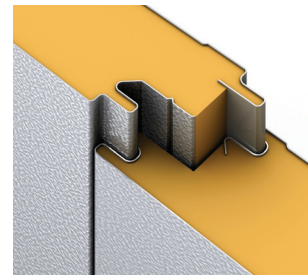
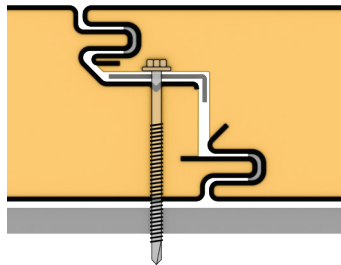
### FINISH/COLOR

Exterior Finish: Siliconized Polyester, low-gloss PVDF  
Interior Finish: Polyester, Siliconized Polyester, Plastisol (PVC)  
Exterior Texture: Heavy embossed  
Interior Texture: Embossed, smooth

### APPLICATION

TremLock ThermalHE is flat, insulated metal wall panel for use in exterior wall applications. Standard panel lengths 8'0" - 40' 0".

### PANEL OPTIONS



A. 2"-4" B. 42" Coverage

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## TESTING

| TYPE                      | TEST PROTOCOL | DESCRIPTION   | RESULTS  |
|---------------------------|---------------|---|--|
| ENVIRONMENTAL PERFORMANCE | ASTM C518     | Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus  | K-Factor 0.139 BTU-in/hr-ft <sup>2</sup> -F° at 75° mean<br><br>K-Factor 0.129 BTU-in/hr-ft <sup>2</sup> -F° at 35° mean |
|                           | ASTM E283     | Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen  | 0.0011-cfm/sf at 20-psf  |
|                           | ASTM E331     | Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference   | Zero penetration at 20-psf   |
| FOAM CORE CHARACTERISTICS | ASTM C273     | Shear Properties of Sandwich Core Materials   | Shear Strength = 16-psi  |
|                           | ASTM D1621    | Compressive Properties of Rigid Cellular Plastics   | Compressive Strength – 18-psi  |
|                           | ASTM D1622    | Apparent Density of Rigid Cellular Plastics   | Apparent Density – 2.25-pcf  |
|                           | ASTM D1623    | Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics  | Tensile Strength – 21-psi  |
|                           | ASTM D6226    | Open Cell Content of Rigid Cellular Plastics  | Open Cell Content ≥ 90% closed cells   |
| FIRE RESISTANCE           | ASTM E84      | Surface Burning Characteristics of Building Materials   | Flame Spread < 25, Smoke Developed < 450   |
|                           | NFPA 285      | Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components                 | Passed – see technical bulletin ATB-0007   |
|                           | FM 4880       | Factory Mutual Approval Standard for Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems | Class 1 Fire Rated – see technical bulletin ATB-0005   |
| IMPACT RESISTANCE         | FM 4881       | Factory Mutual Approval Standard for Class 1 Exterior Wall Systems  |  |
|                           | TAS 201       | Florida Building Code Impact Test Procedure   | Miami Dade County NOA No. 15-0204.02   |



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## TESTING (Continued)

| TYPE                   | TEST PROTOCOL         | DESCRIPTION   | RESULTS  |
|------------------------|-----------------------|---|--|
| ENGINEERING PROPERTIES | ASTM E1592            | Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference | See Load Tables  |
|                        | ASTM E72              | Strength Tests of Panels for Building Construction  | See Load Tables  |
|                        | FM 4881               | Factory Mutual Approval Standard for Class 1 Exterior Wall Systems                                      | Class 1 Approved – see technical bulletins ETB-0008 and ETB-0013                   |
| APPROVALS              | Miami-Dade County     | Miami-Dade County Product Control Section – Notice of Acceptance  | Miami Dade County NOA No. 15-0204.02   |
|                        | State of Florida      | Florida Product Approval  | #16327-R1  |
|                        | TX Dept. of Insurance | Product Evaluation  | Evaluation ID: EC-103  |
| BOND STRENGTH          | Fatigue Endurance     | 2,000,000 Alternating Cycles of L/180 Deflection  | No evidence of facer or liner delamination, fracture of foam core or permanent set |
|                        | Freeze/Heat Cycle     | Twenty-One (21) Eight-hour Temperature Cycles (-20° F to 180° F)  | No evidence of delamination, blistering or permanent set                           |
|                        | Humidity Endurance    | 1,200 Hours of 93% Humidity at a Temperature of 158° F  | No evidence of delamination, blistering or interface corrosion                     |
|                        | Autoclave             | Exposure to 218° F and a pressure of 2-psig for 2½ hours  | No evidence of facer or liner delamination   |

## MAINTENANCE

Your local Tremco Roofing sales representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

## PRECAUTIONS

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

## TECHNICAL SUPPORT

Your local Tremco Roofing sales representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



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