WORLD LEADER IN INSULATED METAL PANEL TECHNOLOGY

ONE-PIECE EXTERIOR/INTERIOR WALL SYSTEMS • METAL ROOF SYSTEMS • MEMBRANE ROOF PANELS

aluma shield
The state-of-the-art in metal construction is advancing daily. Nowhere is that fact more apparent than at Aluma Shield. With a dedication to explore every possibility for combining metal with foam, Aluma Shield is relentless in its quest to provide the very best choice for strong, energy efficient, composite building products. Our proven manufacturing technologies are applied at plants around the world as we commit our resources to providing owners, architects, engineers and contractors with the products they want at prices that work. Whether you need insulated panels for exterior walls, a complete one-piece roof system, or interior partitions, Aluma Shield has the right product for commercial, industrial, institutional and low temperature buildings.

As you plan your next construction project, we ask that you consider the outstanding features incorporated into every Aluma Shield insulated metal product. Each is designed to deliver advantages and benefits in both construction efficiency and long term building performance. We look forward to serving you.

John Peters
CEO
CAPABILITY + INN

World-wide leader

aluma shield
**Light Weight - High Strength**

Through the efficient combination of urethane insulation with pre-painted galvanized steel sheets, a light weight composite building panel is produced. The panel delivers excellent structural strength and even allows the use of longer spans without requiring additional support. In fact, the strength of Aluma Shield composite panels is greater than that produced by the combined individual pieces of field assembled metal systems.

**Assured Thermal Value - Ecologically Friendly**

The foamed-in-place, CFC-free urethane core of Aluma Shield panels is injected as a liquid, rises and fuses to the metal skins. This completely fills the interior cavity creating the solid, monolithic panel. There are no gaps or voids to affect thermal value, and no space for moisture, insects or rodents to infiltrate. Vapor barriers are easily achieved and thermal performance is enhanced since there is no through metal conductance from exterior to interior.

Building with Aluma Shield panels essentially allows for the construction of a closed system since all joints are sealed with either gaskets or caulk. Our published thermal values are TESTED values that are indicative of in-place performance. It is also important to note that with Aluma Shield panels, no harmful substances are dispersed into the atmosphere or ground during either the manufacturing process or the actual erection stages of construction.

**Materials and Finish**

The standard exterior and interior face material for Aluma Shield wall and roof panels is 26 gauge stucco embossed G-90 galvanized steel. A 20-year PPG Duranar® PVDF exterior finish is standard for all commercial/industrial applications. Optional exterior skins of .032 aluminum and stainless steel are also available. Exterior color choices are profiled on page 19. The interior sheet features a 20 year PPG finish that allows the face to serve as a pre-finished ceiling or wall.
For cold storage, the standard exterior and interior finish is a USDA accepted PPG Durafin 2000™ High Performance Coating that can be used in process areas requiring heavy wash down. It is highly durable, readily cleanable and provides 20 year warranted performance.

Lower Field Assembly Costs

Aluma Shield panels are installed from the exterior side of a building using a minimal number of fasteners. The AW-200, 300, 400, and 500 panels are fastened with a clip and screw concealed in the interlocking side joints. The HR-900 roof panel is fastened through the high rib with top-side clips and fasteners painted to match the panels. The MR-100 uses a self-tapping flat head screw at the joint with a fully sealed membrane batten strip covering the joint connection.

Thanks to the composite nature of Aluma Shield panels, installation is accomplished with a one step pass around the building that provides a completed exterior finish, the insulation, and a completed interior finish. Compare this to the multi-piece, multi-pass operation required to install field assembled systems. With Aluma Shield panels, labor costs are reduced while building enclosure and overall completion time are expedited. Additionally, panels can be erected during inclement weather thanks to the products’ closed cell urethane core.

Total value

Consider all the advantages of building with Aluma Shield insulated panels, and then factor in their competitive price. The result is total value. Value not only during construction, but also during the life of the building thanks to reduced energy and maintenance costs. Aluma Shield insulated panels...the very best choice for your construction dollar.
ARCHITECTURAL RIBBED WALL PANEL

The AW-200 is a highly efficient exterior wall panel that blends structural strength with the traditional ribbed look of an architectural wall system. Aluma Shield’s two-inch thick model is a very popular and economical choice for use as insulated siding for pre-engineered and industrial buildings. The thicker versions of the AW-200 (R-47 maximum insulation value) are especially well suited for exterior walls on any low temperature building application.

**Design Features**

- Shallow rib profile conceals panel joints and delivers one continuous appearance
- Urethane foam core bonds to the steel skin and prevents interstitial condensation while delivering unsurpassed insulating protection
- Tongue-and-groove joint practically eliminates air and water infiltration
- Factory caulked side joints are available as an option to eliminate field caulking
- Pre-painted panels arrive on job site complete and ready for installation, thus reducing erection time and improving ease of installation

**Specifications**

- **Panel Thickness:** 2", 2.5", 3", 4", 5", 6"
- **R-Value (by ASTM C 236):** 17.1, 20.8, 24.5, 32.0, 39.4, 46.9
- **Panel Width:** 42"
- **Panel Length:** 48' 0" standard maximum
- **Insulation Material:** Foamed-in-place urethane with a density of approximately 2.4 lbs./cu. ft.
- **Joint Configuration:** Tongue and groove
- **Accessories:** Aluminum extrusions, flashings, sealants, and fasteners are available

**Panel Exterior:** Standard is 26 gauge, stucco embossed G-90 galvanized steel with PPG Duranar® PVDF finish for commercial/industrial applications, and PPG Durafin 2000™ High Performance Coating for cold storage applications. Both finishes offer excellent value with a 20-year warranted performance.

**Panel Interior:** Standard is 26 gauge white stucco embossed G-90 galvanized steel with PPG Durafin 2000™ High Performance Coating, USDA accepted, warranted for 20 years in areas requiring heavy wash down

**Customer Options:** Other gauges in steel or other materials; a choice of 8 standard PVDF colors and custom color coatings to match customer color samples

*not available in cold storage applications

*subject to terms & conditions of coating warranty agreement
EXTERIOR SIDE

CONCEALED FASTENER

CONCEALED CLIP

BUTYL CAULK, CONTINUOUS
(INDUSTRIAL/COMMERCIAL)

BUTYL CAULK
(COLD STORAGE)

14 GA. GALV. HIDDEN FASTENER CLIP

#14 x ___ " TYPE B SELF TAPPING OR
#14 X ___ " SELF DRILLING SCREW
ARCHITECTURAL SHADOWLINE WALL PANEL

The AW-300 is the non-ribbed version of the AW-200. It features a relatively smooth exterior profile with only slight grooved striations to enhance the strength of the panel. The AW panel’s joint profile allows for concealed fasteners resulting in one continuous look which adds to overall design flexibility. The AW-300’s flush profile with light vertical shadowlines make it ideal for use as an exterior wall on commercial and industrial buildings, as well as for interior or exterior wall and ceiling applications in certain cold storage facilities.

**Design Features**

- Monolithic construction combined with the nature and shape of the profile generate a load span capability which greatly exceeds that of traditional built-up systems
- 20-year PVDF coating is standard and offers resistance to ultraviolet radiation and chemical degradation
- Factory caulked side joints are available as an option to eliminate field caulking†
- Pre-painted panels arrive on job site complete and ready for installation, thus reducing erection time and improving ease of installation
- Composite panels provide an added advantage with their ability to be installed in practically all weather conditions, thus preventing costly construction delays

**Specifications**

<table>
<thead>
<tr>
<th>Panel Thickness:</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>5&quot;</th>
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<tbody>
<tr>
<td>R-Value (by ASTM C 236):</td>
<td>17.1</td>
<td>20.8</td>
<td>24.5</td>
<td>32.0</td>
<td>39.4</td>
<td>46.9</td>
</tr>
<tr>
<td>Panel Width:</td>
<td>42&quot;</td>
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<tr>
<td>Panel Length:</td>
<td>48' 0&quot; standard maximum</td>
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<tr>
<td>Insulation Material:</td>
<td>Foamed-in-place urethane with a density of approximately 24 lbs./cu. ft.</td>
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<tr>
<td>Joint Configuration:</td>
<td>Interlocking tongue and groove</td>
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<td></td>
</tr>
<tr>
<td>Accessories:</td>
<td>Aluminum extrusions, flashings, sealants, and fasteners are available</td>
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<td></td>
</tr>
<tr>
<td>Panel Interior:</td>
<td>Standard is 26 gauge white stucco embossed G-90 galvanized steel with PPG Durafin 2000™ High Performance Coating, USDA accepted, warranted for 20 years in areas requiring heavy wash down*</td>
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<tr>
<td>Customer Options:</td>
<td>Other gauges in steel or other materials; a choice of 8 standard PVDF colors and custom color coatings to match customer color samples</td>
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</table>

*not available in cold storage applications  
*subject to terms & conditions of coating warranty agreement
BUTYL CAULK, CONTINUOUS (INDUSTRIAL/COMMERCIAL)

BUTYL CAULK (COLD STORAGE)

14 GA. GALV. HIDDEN FASTENER CLIP

#14 x ___ " TYPE B SELF TAPPING OR #14 X ___ " SELF DRILLING SCREW

EXTERIOR SIDE

CONCEALED FASTENER

CONCEALED CLIP
ARCHITECTURAL STRIATED WALL PANEL

The lightly striated exterior profile of the AW-400 creates a highly attractive, near flat appearance, yet it still delivers the structural strength to allow for application in lengths to 48 feet. This panel delivers an excellent architectural metal wall system with striking aesthetic appeal and excellent thermal performance. It is expressly designed for the commercial/retail buildings market.

**Design Features**

- Highly attractive near flat appearance
- Concealed fastening system provides excellent architectural versatility at a very attractive price
- Factory caulked double interlocking joint is self aligning and weather tight
- CFC-free urethane in a thickness of 2" delivers R-17 insulation value
- The metal skin is 26-gauge galvanized steel with 20-year PPG Durafin 2000™ high performance coating

**Specifications**

<table>
<thead>
<tr>
<th>Panel Thickness:</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>5&quot;</th>
<th>6&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value (by ASTM C 236):</td>
<td>17.1</td>
<td>20.8</td>
<td>24.5</td>
<td>32.0</td>
<td>39.4</td>
<td>46.9</td>
</tr>
<tr>
<td>Panel Width:</td>
<td>42&quot;</td>
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<tr>
<td>Panel Length:</td>
<td>48' 0&quot; standard maximum</td>
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<tr>
<td>Insulation Material:</td>
<td>Foamed-in-place urethane with a density of approximately 2.4 lbs./cu. ft.</td>
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<tr>
<td>Joint Configuration:</td>
<td>Interlocking tongue and groove</td>
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<td></td>
</tr>
<tr>
<td>Accessories:</td>
<td>Aluminum extrusions, flashings, sealants, and fasteners are available</td>
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</tbody>
</table>

**Panel Exterior:** Standard is 26 gauge, stucco embossed G-90 galvanized steel with PPG Duranar® PVDF finish for commercial/industrial applications, and PPG Durafin 2000™ High Performance Coating for cold storage applications. Both finishes offer excellent value with a 20-year warranted performance.

**Panel Interior:** Standard is 26 gauge white stucco embossed G-90 galvanized steel with PPG Durafin 2000™ High Performance Coating, USDA accepted, warranted for 20 years in areas requiring heavy wash down*

**Customer Options:** Other gauges in steel or other materials; a choice of 8 standard PVDF colors and custom color coatings to match customer color samples

*subject to terms & conditions of coating warranty agreement
EXTERIOR SIDE
HIDDEN FASTENER CLIP

CONCEALED FASTENER

BUTYL CAULK, CONTINUOUS (INDUSTRIAL/COMMERCIAL)

BUTYL CAULK (OPTIONAL)

14 GA. GALV. HIDDEN FASTENER CLIP

#14 x " TYPE B SELF TAPPING OR
#14 x " SELF DRILLING SCREW
ONE PER PANEL, PER GIRT
**ARCHITECTURAL STUCCO WALL PANEL**

The new AW-500 wall panel features Aluma Shield's unique Azteco® embossing. This process creates an exterior metal wall system that simulates the smooth continuous look of masonry stucco. It is available in three different widths and in fact is the only 26-gauge flush metal wall panel system available in a 42" width. The AW-500 is also available in a 36" width which allows maximum flexibility for meeting the needs of designers.

**Design Features**
- Longer lengths than other industrial/commercial panel systems – standard to 48'
- Light weight – a 2" R17.1 panel weighs only 2.5 lbs./s.f.
- Factory caulked side joints are available as an option to eliminate field caulking
- Pre-finished interior and exterior surface – no field painting
- Thicknesses from 2" to 6" (R-39.4)

**Specifications**

<table>
<thead>
<tr>
<th>Panel Thickness - 42&quot; width:</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
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</thead>
<tbody>
<tr>
<td>36&quot; width</td>
<td>2&quot;</td>
<td>2.5&quot;</td>
<td>3&quot;</td>
<td></td>
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</tbody>
</table>

R-Value (by ASTM C 236): 17.1

Panel Width: 36", 42"

Panel Length: 48' 0" standard maximum

Insulation Material: Foamed-in-place urethane with a density of approximately 2.4 lbs./cu. ft.

Joint Configuration: Interlocking tongue and groove

Accessories: Aluminum extrusions, flashings, sealants, and fasteners are available


Panel Interior: Standard is 26 gauge white stucco embossed G-90 galvanized steel with PPG Durafin 2000™ High Performance Coating, USDA accepted, warranted for 20 years in areas requiring heavy wash down

Customer Options: Other gauges in steel or other materials; a choice of 8 standard PVDF colors and custom color coatings to match customer color samples

*not available in cold storage applications

*subject to terms & conditions of coating warranty agreement
This versatile insulated panel is equally impressive for exterior wall or roof applications. Available with R-values up to 42, the HR-900 gets especially high marks as a roof panel for commercial buildings, recreational facilities, cold storage buildings and other low temperature applications. It is designed for use in both new and re-roof applications where speed of erection, lightweight and thermal efficiency add value to the roofing system.

**Design Features**
- High-rib design provides maximum strength characteristics
- In roof applications structural fasteners mounted above the water line allow fast, one-step assembly and the strength to resist high wind uplift (UL 90 rated)
- Steel skins bonded to urethane foam core prevents interstitial condensation which aids in the retention of insulation values. This bonding also provides composite strength and allows for lighter gauges or fewer girts than alternative roof systems for the same span conditions.
- 20 year PPG paint finish provides long lasting esthetic appeal
- Continuous flow production on a fully automated line produces superior panels of uniform quality

**Specifications**

Panel Thickness: ............... 1"  1.5"  2"  2.5"  3"  4"  5"
R-Value (by ASTM C 236): ......... 10.2  14.2  18.2  22.2  26.2  34.2  42.2
Panel Width: .................... 40"
Panel Length: .................... 48' 0" standard maximum
Insulation Material: .............. Foamed-in-place urethane with an approximate density of 24 lbs./cu. ft.
Joint Configuration: ............. Overlapping standing seam rib
Accessories: ..................... Flashings, sealants, and fasteners are available
Panel Interior: ................. Standard is 26 gauge white stucco embossed G-90 galvanized steel with PPG Durafin 2000™ High Performance Coating, USDA accepted, warranted for 20 years in areas requiring heavy wash down*
Customer Options: ............. Other gauges in steel or other materials; a choice of 8 standard PVDF colors and custom color coatings to match customer color samples

*subject to terms & conditions of coating warranty agreement
ONE-PIECE MEMBRANE ROOF PANEL

The MR-100 composite insulated roof panel provides a complete, one-piece weather tight exterior roofing system. It is a foamed-in-place (urethane foam) insulated metal panel that utilizes a fully adhered “Class A” 34 mil white membrane. This membrane is factory adhered to a 26 gauge G-90 galvanized steel substrate. The bottom layer features a pre-finished 20-year coating perfectly suited for interior ceilings. With applications for both conventional and pre-engineered structures, the MR-100 is most suitable for cold storage applications requiring maximum energy efficiency.

**Design Features**
- Foamed-in-place urethane insulation up to six inches thick delivers maximum insulation value (R-46.9)
- Laminated membrane provides additional benefits in heat reflectivity and time-tested dependability
- All panel-to-panel seams and roof openings are sealed with a 48 mil batten strip to provide for weathertightness and expansion requirements
- 10-year weathertightness warranty available
- Factory Mutual System Approval

**Specifications**
- Panel Thickness: ......... 2" 2.5" 3" 4" 5" 6"
- R-Value: ................... 17.1 20.8 24.5 32.0 39.4 46.9
- Panel Width: ............ 42"
- Panel Length: .............. 20' maximum (cold storage)
- ........................................ 40' maximum (commercial/industrial)
- Insulation Material: ........ Foamed-in-place urethane with an approximate density of 2.4 lb./cu. ft.
- Joint Configuration: ........ Tongue-and-groove with all panel-to-panel seams and roof openings heat welded with a 6-inch wide 48 mil batten strip
- Accessories: ............... Flashings, sealants, and fasteners are available
- Top Surface: ............... 34 mil white “Class A” membrane factory adhered to a 26 gauge G-90 galvanized steel substrate
- Panel Interior: ............. Standard is 26 gauge white stucco embossed G-90 galvanized steel with PPG Durafin 2000™ High Performance Coating, USDA accepted, warranted for 20 years in areas requiring heavy wash down*
- Customer Options: .......... Other gauges available on special request. Ten year manufacturer’s weathertightness warranty available.

*subject to terms & conditions of coating warranty agreement
FULLY TESTED AND WARRANTED

Before you specify an insulated metal panel, be certain it meets all industry standards.

The FM approval guides list approved insulated panels which have been tested under actual fire conditions in complete assemblies (FM 4880). These products “will not contribute materially to flame propagation or sustain an unusual amount of damage when subject to controlled fire conditions.” They are viewed as CLASS 1 building products and are given preferential insurance rates.

There are no polystyrene panels listed in these sections of the approval guides. As a matter of fact, industry flame spread tests reveal that polystyrene insulation becomes a burning molten mass under a steady ignition of just nine seconds. In comparison, Aluma Shield foamed-in-place urethane panels offer excellent thermal and physical properties and are listed in these sections on the basis of having passed full-scale fire tests.

Warranties
All building panels furnished by Aluma Shield shall be free from defects in material and workmanship for a period of one year from date of shipment. The terms and conditions of any Aluma Shield warranty shall be in accordance with those stated on the full written warranty.

Tests
Fire Performance - Aluma Shield polyurethane core panels have passed the Factory Mutual full scale corner test (includes ASTM E84 and D1929) and are approved for unlimited heights. These results indicate that buildings utilizing Aluma Shield polyurethane panels on walls and/or ceilings do not require a sprinkler system of themselves, qualifying the building for reduced insurance premiums.

Thermal Transmission - Aluma Shield panels have been tested for insulating values in accordance with ASTM C518 and ASTM C236 test methods. Results from individual panel types are available.

Air Infiltration - Panel joints have been tested for air infiltration in accordance with ASTM E283. Results for individual panel types are available.

Water Penetration - Panel joints have been tested for water penetration in accordance with ASTM E331. Results for individual panel types are available.

Structural - Aluma Shield roof panel products are classified by Factory Mutual as to FMI-90 wind uplift. Wall panels have been tested as to wind pressure resistance according to spans. Results for individual panel types are available.

Paint/Properties - Aluma Shield offers PPG Industries’ paint systems exclusively for its standard finish coatings. These include the DURANAR® PVDF finish and PPG’s Durafin 2000™ High Performance Coating. Each of these paint systems offer an excellent value with 20-year warranted performance. Based on HYLAR 5000® or KYNAR 500® resin technology, the DURANAR family of coil coatings are recognized as providing unsurpassed performance in critical areas such as color retention, film erosion, and chemical resistance, while the Durafin 2000 finish is also warranted for use in process areas requiring heavy wash down. PPG’s additional DURANAR High Performance Fluoropolymer Architectural Coil coatings are also available at an additional cost.
STANDARD COLOR COATINGS

PPG Standard DURANAR® PVDF Colors

- Slate Gray
- Surrey Beige
- Colonial Red
- Regal White (USDA accepted)
- Slate Blue
- Evergreen
- Dark Bronze
- Sandstone

PPG Standard Durafin 2000™ Colors

- Imperial White (USDA accepted)
- Sandstone
- Surrey Beige

Above chart approximates actual paint colors. Refer to color chart available from Aluma Shield for exact color representation.

PPG Coatings Protected

Color and durability are the very essence of the PPG Industries DURANAR and Durafin 2000 coatings offered by Aluma Shield. Each finish features a 20-year warranty with outstanding resistance to ultraviolet radiation and chemical wash down with maximum exterior and interior durability. PPG is an industry leader with the most comprehensive outdoor testing program in place. Over 100,000 panels under constant surveillance in ten locations worldwide — representing a variety of climates and environments from rural to industrial. Consult Aluma Shield for any technical assistance that you may require for selecting the proper coating system for a particular job. You can depend on Aluma Shield and PPG for proven performance.
INSULATED SECTIONAL DOOR PANELS

Aluma Shield is also a leading manufacturer of insulated metal panels used as the primary component in overhead sectional door systems. We supply our reliable, high-quality panel sections to manufacturers and distributors of overhead door systems located throughout the world. Aluma Shield offers five distinct design profiles:

**MAX-R Series**

- STANDARD RAISED PANEL exterior design w/embossed woodgrain finish
- "FINGER SAFE" joint design w/embossed woodgrain finish
- LONG "RANCH STYLE" PANEL design w/embossed woodgrain finish
- FLUSH PROFILE w/stucco embossed finish
- FULL LENGTH MICROGROOVED commercial sections feature a stucco embossed finish on both sides

These factory insulated panels are pre-painted and available in various thicknesses, metal gauges, widths, and lengths. The panels all feature 3-3/4 inch built-in reinforcing plates for hardware attachment, and a gasketed tongue-and-groove joint to create maximum weather tightness and smooth opening and closing. And because we use only foamed-in-place polyurethane insulation, Aluma Shield panels deliver the very highest R-values — much higher than that offered by manufacturers who utilize polystyrene insulation.

For complete information contact the Sectional Door Division in Daytona Beach at 386/255-5391.
Aluma Shield manufactures the Hercules line of cold storage and industrial doors which over the past 50 years, have earned a worldwide reputation for rugged dependability and durability. Designed for both interior and exterior material handling applications, Hercules offers a full line of doors for use in cold storage warehouses, freezers, ripening rooms, general industrial facilities, high technology clean rooms, and many other custom design applications.

- Infitting hinged doors
- Bi-parting horizontal sliding doors
- Single horizontal sliding doors
- Vertical lift doors
- Bi-folding doors
- Sectional overhead doors
- Ripening Room and Controlled Atmosphere doors
- Custom designed doors

Hercules doors are available with a variety of metal claddings and can also be constructed with a white fiberglass reinforced polyester finish. Optional features include a wide choice of power operators, state-of-the-art special controls, detection devices, windows, locks, casings, rails, escape hatches, and more. All Hercules doors are insulated with polyurethane, the most efficient material available, and feature our standard seven year warranty against defects in materials and workmanship. Hercules Doors welcomes inquiries for any standard or special application insulated doors.

For complete information contact the Hercules Door Division in Daytona Beach at 386/255-5391.