

# HEAVY EMBOSSED FLAT PROFILE INSULATED PANEL SPECIFICATIONS

## 1. PRODUCT NAME

AMS Insulated Heavy Embossed Flat Profile (HE40) Wall Panels.

## 2. MANUFACTURER

Insulated panels shall be supplied by:

### ARCHITECTURAL METAL SYSTEMS

1150 State Docks Road  
Eufaula, Alabama 36027  
Phone: (334) 688-2650  
Fax: (334) 687-0298

## 3. PRODUCT DESCRIPTION

These flat profile wall panels provide 40" of coverage in four foam core thickness options; 2" 2 1/2", 3" or 4".

**Basic Use:** Insulated Heavy Embossed Flat Profile panels, a steel clad factory insulated wall covering system, installed with related accessories and trims, create an air and water tight wall system.

**Materials:** The exterior metal substrate is a flat heavy emboss 26 gage, G90 zinc-coated (galvanized) steel. Pre-painted exterior panels have Architectural Metal Systems' 30 year SmartKote® (PVDF) finish with a total dry film thickness of 1.0 mil including primer. The lightly embossed plank profile interior liner is pre-painted Imperial White, 26 gage G60 Galvanized or AZ35 Galvalume, steel coated with a 20 year polyester finish and a dry film thickness of 1.0 mill including primer.

The continuously foamed in place panel core is Class 1 rigid polyisocyanurate (polyurethane) foam meeting the physical properties listed under section 4 G.

**Sealants:** Tape mastic shall be non-staining, non-corrosive, non-toxic and non-volatile, Sika Sika-TapeTC-95 or equal. Composition is 100% solid isobutylene tripolymer tape with a service temperature of -60°F to +212°F required as indicated on the erection drawings. Butyl caulk sealant shall be Schnee-Morehead 5430 or equivalent with a service temperature of -60°F to +200°F.

**Fasteners:** All wall fasteners shall be per the following.

**A.** Unexposed self-drilling screws attaching through the cut panel to secondary support material at corners, jambs and header type connections shall be carbon steel No. 14 hex head TEK fasteners, required length will vary with panel thickness. These fasteners will be covered by the appropriate flashings.

**B.** Unexposed fasteners connecting secondary to secondary material that will lie between the panel and secondary members shall be No. 10 x 1" self-drilling pan head screws zinc plated. These electro zinc plated fasteners shall be clear or yellow chromate coated

**C.** Unexposed self-drilling screws with washer clip attaching at panel side joint through to the secondary support members shall be carbon steel No. 14 hex head TEK fasteners with washers, required length will vary with panel thickness.

**D.** Exposed standard wall fasteners for panel to trim attachment shall be No. 14 x 3/4" self-drilling carbon steel screws. Standard wall fasteners shall have a corrosive resistant coating over zinc plating.

## 4. TECHNICAL DATA

**A.** The Insulated Heavy Embossed Flat Profile wall panel's ability to withstand positive and negative design loads verified by testing in accordance with the ASTM E 72 Vacuum Chamber Method the standard deflection criteria is L/180.

**B.** Thermal properties have been verified by actual tested values in accordance with the ASTM C 518 steady state thermal transmission test method. Aged K Factor did not exceed .14 @ 75°F mean temperature or .13 @ 40°F mean temperature.

**C.** Weather-tightness of the insulated panel system tested and verified by the ASTM E 283 air infiltration method and the ASTM E 331 water penetration method. Air leakage did not exceed 0.01 CFM per square foot of wall area at a pressure differential of 12.0 psf. Water leakage was not observed at the panel joint at a pressure differential less than 6.27 psf.

**D.** The panel has a Factory Mutual Class 1 Approval for wall and roof/ceiling construction in accordance with the full scale FM 4880 test program with no height restriction.

**E.** The panel has a Factory Mutual Class 1 Exterior Wall System Approval for Windstorm in accordance with FM 4881.

**F.** Panel core flame spread maximum of 25 and smoke developed maximum of 450 as tested in accordance with ASTM E 84 test method.

**G.** The polyisocyanurate (polyurethane) foam core meets or exceeds the following physical properties:

- Compressive strength: 25 psi
- Density (in-place): 2.1-2.5 pcf
- Shear Strength: 28-32 psi
- Closed Cell Content: 95%
- Dimensional Stability: 14 day aged (ASTM D 2126)  
-20°F < 1% chg, Dry Heat 158°F, < 1% chg, Humid Heat 158°F

## 5. QUALITY PANEL INSTALLATION

The contractor/installer shall examine the alignment of the framing before installing the insulated panels. The steel shall be aligned to the tolerances established in the AISC code of standard practices, section 7, and the supplemental modification control section 7.11.3, adjustable items. The maximum deviation of steel alignment shall be limited to -0 to 3/16" from the control with a 1/8" maximum change in deviation for any member of any

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10'-0" run of panel. The erector shall not proceed with installation if the steel framing is not within the specified tolerances. The face of all structural members to which the panels are attached must be in the same vertical plane, flat and free of obstructions such as weld marks or bolt heads.

The Insulated Heavy Embossed Flat Profile wall panels should be erected in accordance with Architectural Metal Systems' Insulated Panel Product Manual, approved details and building erection drawings, by an Architectural Metal Systems Authorized Builder using proper tools and equipment.

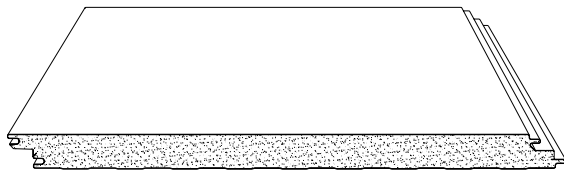
## 6. AVAILABILITY

For availability, contact:

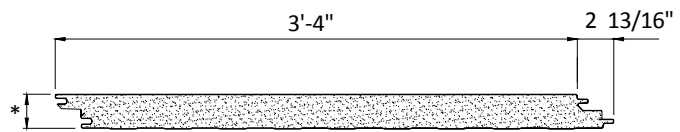
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## 7. WARRANTY

Material warranties are available.



HEAVY EMBOSSED FLAT PROFILE



\* WALL PANEL THICKNESS: 2", 2 1/2", 3" OR 4"

## 8. MAINTENANCE

Only normal routine maintenance is required over the life of the panels.

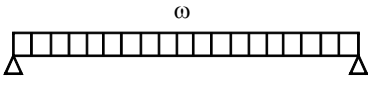
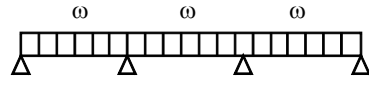
## 9. TECHNICAL SERVICES

For information, contact:

**ARCHITECTURAL METAL SYSTEMS**

## 10. PRODUCT NOTES

Architectural Metal Systems reserves the right to revise all standard specifications and information. Architectural Metal Systems regularly updates its published "Standard Specifications" on the AMS web site, [www.ametalsystems.com](http://www.ametalsystems.com), which supersedes and replaces any previously published standard specifications of Architectural Metal Systems.

		ALLOWABLE LOAD FOR ALL WALL PANELS (PSF) BASED ON L/180 DEFLECTION															
		SPAN (FT)															
PANEL THICKNESS	PANEL WEIGHT																
		SIMPLE SPAN (FT)								MULTIPLE SPAN (FT)							
(IN)	(PSF)	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
2"	2.22	68	49	37	29	23	19			94	70	54	43	35	29	24	20
2.5"	2.34	82	60	45	35	28	23	19		109	82	64	51	41	34	29	24
3"	2.41	96	70	53	41	33	27	22	19	125	94	74	59	48	40	33	28
4"	2.62	131	95	72	56	45	37	31	26	156	119	94	76	63	53	45	38
5"	2.82	138	101	82	61	49	40	33	28	169	128	100	81	66	55	47	40
6"	2.98	148	110	89	66	53	44	37	31	177	135	106	86	71	59	50	43

- Notes:
- 1) Spans shown are based on transverse load testing of the panels per ASTM E-72. Thermal effect due to temperature differentials have not been considered.
  - 2) Loads shown do not include a check of attachment to the supports. Attachment requirements will vary based on project wind load requirements.