



Poly-Iso Panels From PermaTherm



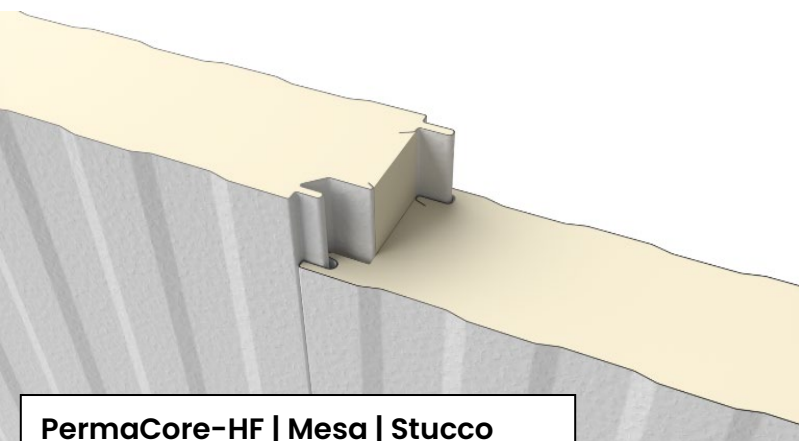
PermaTherm's **PermaCORE** line provides maximum R-value per inch. Utilizing **Gen 4** Poly-Iso Technology (Foamed in Place), **PermaCORE** panels meet the highest EPA standards. With **PermaCORE** you can choose between two panel-joint options:

- **PermaCore-HF** - The hidden fastener joint for a variety of uses including exterior walls.
- **PermaCore-CS** The Cold storage joint which virtually eliminates air entry/loss and thermal bridging.

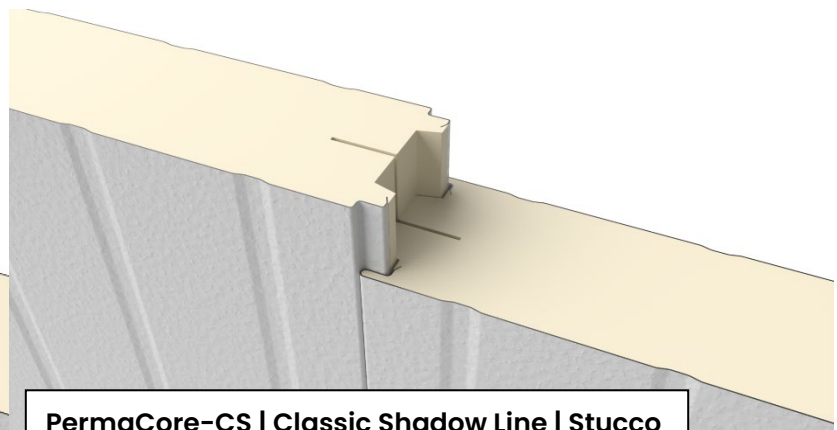


*****Only PermaCORE** delivers factory direct **notched freezer panels**. The ultimate way to prevent thermal bridging and save you countless hours of field cutting!

PermaCORE panels can be used across any application from food processing, to growing environments, clean rooms, and cold storage. PermaTherm's **PermaCORE** panel is the standard for insulated wall panels.



PermaCore-HF | Mesa | Stucco

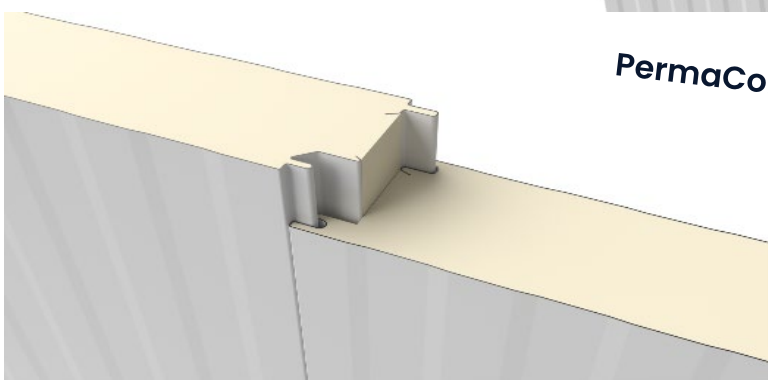


PermaCore-CS | Classic Shadow Line | Stucco

PRODUCT: PermaCORE-HF

PermaCore HF Features the classic Hidden Fastener joint and is suitable for various applications including building exteriors, partition/divider walls, ceilings, and box-in-a-box applications.

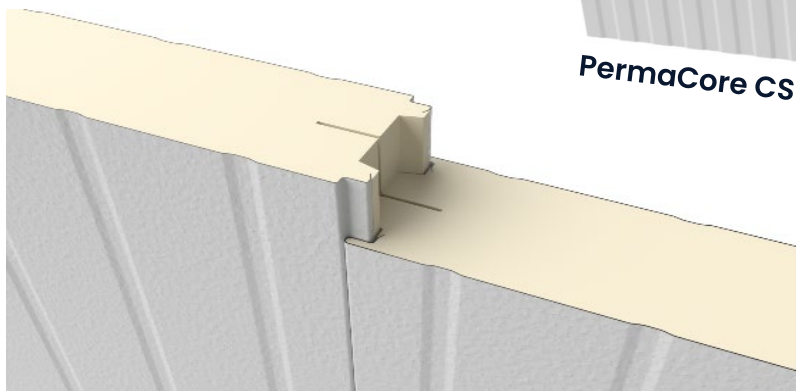
Panel Use:	Exteriors, Partition Walls, Ceilings, Box-in-a-box
Profiles:	Light Mesa, Standard Mesa, Classic Shadow Line, Sleek
Coverage Width:	43"
Available Thickness:	2" 3" 4" 5" 6" 8"
Length:	8'-0" TO 50'-0"
Metal Gauge:	26, 24, 22
Metal Type:	Galvanized
Texture:	Stucco Embossed or Smooth
Paint Type:	Siliconized Polyester
Core:	Polyisocyanurate (Foamed in Place) Insulation
R-Value:	R-8 Per Inch of Thickness (Nominal)



PRODUCT: PermaCORE-CS

PermaCore CS Features **PermaTherm's** Unrivaled Z-LOCK joint and is the preferred choice for coolers and freezers. **Only PermaCORE** offers notched freezer panels. **PermaShield** The ultimate way to prevent thermal bridging and save you countless hours of field cutting!

- Panel Use:** Walls, Partition Walls, Ceilings, Coolers, Freezers
- Profiles:** Light Mesa, Standard Mesa, Classic Shadow Line, Sleek
- Coverage Width:** 45.5"
- Available Thickness:** 4" 6" 8"
- Length:** 8'-0" TO 50'-0"
- Metal Gauge:** 26, 24, 22
- Metal Type:** Galvanized
- Texture:** Stucco Embossed or Smooth
- Paint Type:** Siliconized Polyester
- Core:** Polyisocyanurate Insulation
- R-Value:** R-8 Per Inch of Thickness (Nominal)



PRODUCT: PermaCORE-HF (43") | PermaCORE-CS (45.5")

Profiles: Light Mesa, Standard Mesa, Classic Shadow Line, Sleek

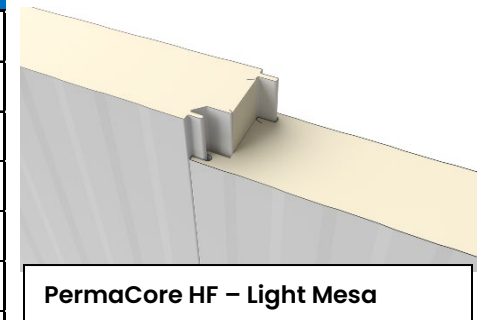
Width: 43 Inch and 45.5 Inch

Gauge: 26-gauge min. (facer and liner)

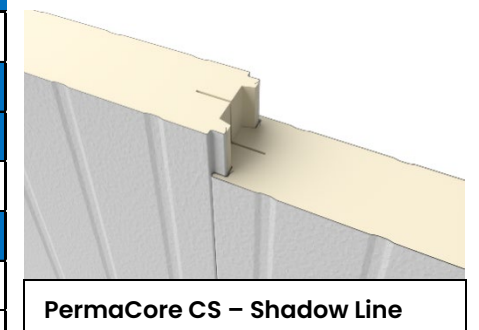
Finish: Embossed or Smooth

PANEL WEIGHTS:

PERMA-CORE HF (HIDDEN FASTNER JOINT) 43" PANEL WIDTH		
THICKNESS	Lbs per SF of panel	Lbs per LF of panel
2"	2.17	7.76
3"	2.37	8.51
4"	2.58	9.25
5"	2.79	10.00
6"	3.00	10.75
8"	3.42	12.24



PERMA-CORE CS (COLD STORAGE JOINT) 45.5" PANEL WIDTH		
THICKNESS	Lbs per SF of panel	Lbs per LF of panel
2"	N/A	N/A
3"	N/A	N/A
4"	2.58	9.79
5"	N/A	N/A
6"	3.00	11.37
8"	3.42	12.95



NOTES:

1. U-values included universally accepted air-films on each side of the insulated metal panel.
2. Values were derived from ASTM C518 test results.

PRODUCT: PermaCORE

PWP Series: PermaCore: Insulated metal wall panels

IRP Series: PermaCore: Insulated metal ceiling panels

Profiles: Light Mesa, Standard Mesa, Classic Shadow Line, Sleek

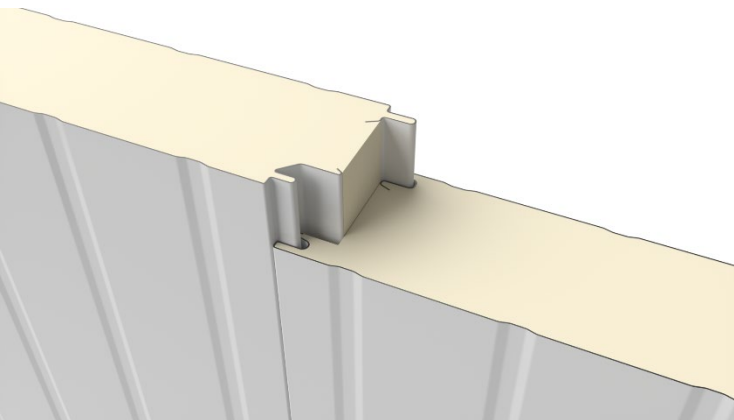
Width: 43" & 45.5" Max

Gauge: 26-gauge min. (facer and liner)

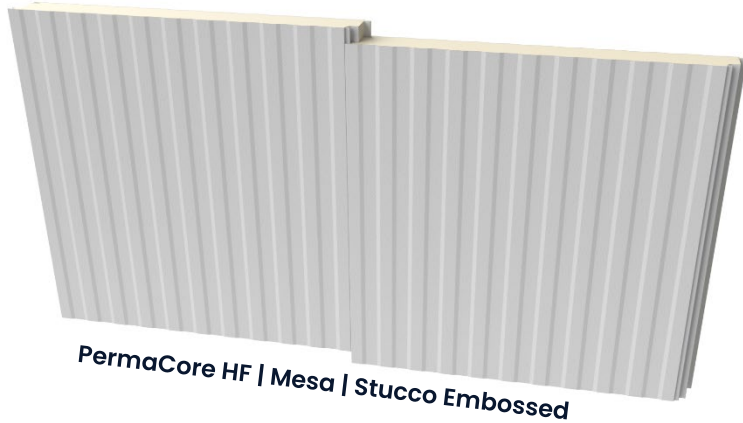
Texture Finish: Embossed or Smooth

R Values:

PANEL THICKNESS (IN.)	35 DEGREE MEAN
2.00	16.00
3.00	24.00
4.00	32.00
5.00	40.00
6.00	48.00
8.00	64.00



PermaCore HF | Classic Shadow Line |



PermaCore HF | Mesa | Stucco Embossed

PANEL MANUFACTURING TOLERANCES

Length: 8' - 50'

Width: 45.5 inches: +/- 1/8 inch

Thickness: 4,6,8

Width: 43 inches: +/- 1/8 inch

Thickness: 2,3,4,5,6 & 8

Squareness: +/- 1/4"

Lateral Bow:

Up to 10 feet: +/- 3/32 inch

10 ft to 20 ft: +/- 3/16 inch

Over 20 feet: +/- 3/8 inch

Flatness: +/- 3/16 inch per 2 ft span

Joints: Male/female joint edges flush, with no more than 1/8 inch deviation.

PHYSICAL PROPERTIES	ASTM METHOD	UNITS	2.5 LB. DENSITY
Density, Minimum	D1622	lb/ft ³	2.35
Density, as tested	D1622	lb/ft ³	2.5
Density, Range	D1622	lb/ft ³	2.35 - 2.7
Compressive Strength	D1621	lb/in ²	39*
Compressive Modules	D1621	lb/in ²	790*
Shear Strength	C273	lb/in ²	17
Shear Modulus	C273	lb/in ²	285
Modulus of Elasticity	C273	lb/in ²	
Tensile Strength	D1623	lb/in ²	35
Flexural Strength	C203	lb/in ²	42
Thermal Conductivity:	C177/C518	BTU-in / hr-ft ² -F	
Thermal Resistance:	C1363		
R-Factor @T"			
@ 35F (-3.9C)		per inch	8
@ 75F (43.3C)		per inch	7
Water Absorption	C272	%	<7%**
Water Vapor Permeability	E96	perms inch	3***
Long Term Service Temp		F	165
Maximum Exposure Temp	D696	F	180

* Parallel to rise

** By Volume insulation only

*** Insulation Only

THERMAL RESISTANCE

(2.5 lb Density @ 35° F)

Thickness (in)	2	3	4	5	6	8
R-Value	16	24	32	40	48	64

SURFACE PANEL BURNING CHARACTERISTICS

(1LB DENSITY)	ASTM METHOD	UL RATING
Flame Spread	E84	25
Smoke Density	E84	450
Hot Surface	C41	Pass



All PermaTherm products are warranted to be free from defects in materials and workmanship for a period of one year from the date of shipment.

A certain amount of “waviness,” or “oil canning,” is inherent in any product made from sheet metal. Installation of large areas of metal panels, or installation of panels to misaligned structures, will cause unnatural stresses, increasing the likelihood of oil canning.

A stucco-like embossed texture in a pre-coated material will reduce the visual effect of oil canning. Oil canning does not affect the structural or thermal integrity of the panel. Minor waviness of the panel does not indicate a defective panel, and is not cause for product refusal.

Minor blisters can sometimes occur when the panel’s exterior face is exposed to the sun. This is caused by the thermal expansion of a blowing agent, which is trapped under the panel face. This is a common phenomenon and is easily repaired, and is not cause for product refusal.

Finished panels free of surface imperfections (dents, mars, scratches, etc.) visible with panel in position of intended use and view under good light from intended installed distance or 8 ft., whichever is greater.