

PRODUCT SPECIFICATIONS

WIDTH

- 30", 36", 42"

THICKNESS

- 2", 2½", 3", 4", 5", 6"

LENGTH

- 8'-0" to 32'-0" for horizontal embossed
- 8'-0" to 16'-0" for horizontal unembossed
- 8'-0" to 52'-0" for vertical embossed
- 8'-0" to 40'-0" for vertical unembossed

Contact Shield-it for custom length availability.

EXTERIOR FACE

- Stucco-embossed, G-90 galvanized or AZ-50 aluminum-zinc coated steel in 26, 24 and **22 Ga.
- **not available in unembossed

INTERIOR FACE

- Stucco-embossed, G-90 galvanized or AZ-50 aluminum-zinc coated steel in 26, 24 and **22 Ga.
- **not available in unembossed

JOINT

- Offset double tongue-and-groove with extended metal shelf for positive face fastening

U-FACTORS AND R-VALUES*

U-FACTOR (BTU/h-ft²·F)

PANEL WIDTH: 42"

	75°
2"	0.0706
2½"	0.0516
3"	0.0424
4"	0.0324
5"	0.0264
6"	0.0224

PANEL WIDTH: 42"

	40°
2"	0.0669
2½"	0.0491
3"	0.0401
4"	0.0305
5"	0.0248
6"	0.0210

R-VALUE (h-ft²·F/BTU)

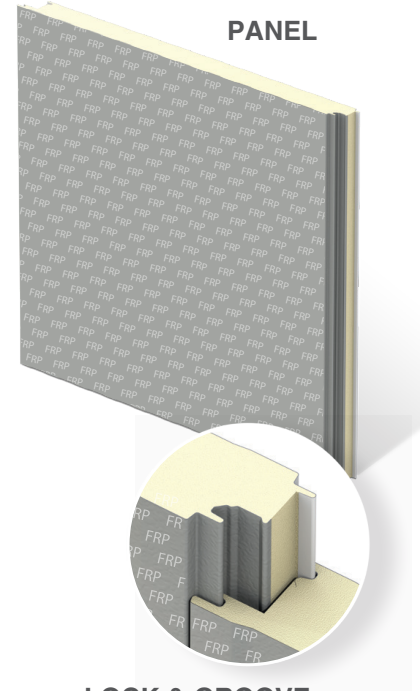
PANEL WIDTH: 42"

	75°
2"	14.16
2½"	19.38
3"	23.58
4"	30.86
5"	37.88
6"	44.64

PANEL WIDTH: 42"

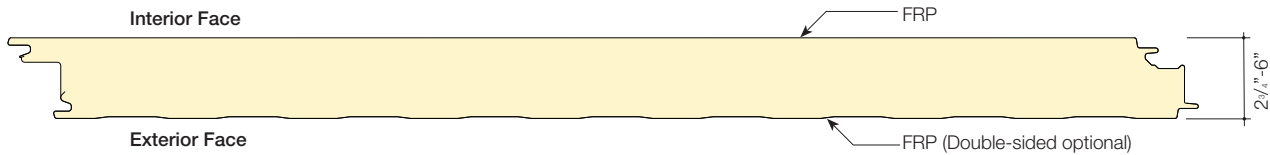
	40°
2"	14.95
2½"	20.37
3"	24.94
4"	32.79
5"	40.32
6"	47.62

*Based on ASTM C518, ASTM C1363 and thermal modeling, 75° F and 40° F core mean temp.



LOCK & GROOVE SYSTEM

PANEL PROFILE



Introducing Shield-it Panels, this panel system has been specifically designed and developed to meet USDA and CFIA mandates. Shield-It FRP panels are excellent for use in food manufacturing and processing environments or in any space where surface durability and high performance are desired.

FRP COATING SPECIFICATIONS

CLASS A FIRE RATING PER ASTM E-84

PHYSICAL PROPERTIES

PROPERTY	FXE	TEST METHOD
FLEXURAL STRENGTH	15 x 10 ³ psi 103 MPa	ASTM - D790
FLEXURAL MODULUS	0.9 x 10 ⁶ psi 6205 MPa	ASTM - D790
TENSILE STRENGTH	6 x 10 ³ psi 41 MPa	ASTM - D638
TENSILE MODULUS	1.6 x 10 ⁶ psi 1132 MPa	ASTM - D638
BARCOL HARDNESS	55	ASTM - D2583
IZOD IMPACT	11 ft-lb/in notched 0.59 J/mm	ASTM - D256
COEFFICIENT OF LINEAR THERMAL EXPANSION	1.7 x 10 ⁻⁵ in/in/°F 31 μm/m/°C	ASTM - D696
GARDNER IMPACT STRENGTH	40 in-lb 4.5 J	ASTM - D5420
WATER ABSORPTION	< 0.20%/24hrs@77°F 25°C	ASTM - D570
SURFACE BURNING CHARACTERISTICS	Class A	ASTM - E84
TABER ABRASION RESISTANCE (cs-17 wheels, 1000 g. Wt, 25 cycles)	0.038% Max Wt. Loss	Taber Test

SI-45 FRP PANEL
FIRE TESTING SPECIFICATIONS

TEST/APPROVAL	TEST METHOD	TEST TITLE	RESULTS
Fire US	ASTM E84	Surface Burning Characteristics of Building Materials	Flame spread <25, smoke developed <450
	ASTM E119	Fire Tests of Building Construction Materials	One hour non-load bearing rating with two layers of Type X Gypsum Vertical or horizontal installation
	FM 4880	Class 1 Fire Rating of Insulated Wall, Ceiling and Roof Panels	Product approved Exterior wall requires FM 4881 approval
	NFPA 259	Test Method for Potential Heat of Building Materials	Potential heat of foam plastic insulation contained in the assembly tested in accordance with NFPA 285
	NFPA 285	Evaluation of Fire Propagation Characteristics of Exterior Non-Load Bearing Wall Assemblies	Panel assembly met the requirements of the standard
	NFPA 286	Fire Tests for Evaluating Contribution of Wall and Ceiling Finish to Roof Fire Growth	Test specimen met the criteria of the IBC Section 803.1.2.1
Fire Canada	CAN/ULC S101	Fire Endurance Tests of Building Construction and Materials	One hour non-load bearing fire rating with two layers of Type X Gypsum
	CAN/ULC S101	Fire Endurance Tests of Building Construction and Materials	Meets 15 minute stay-in-place requirements
	CAN/ULC S102	Surface Burning Characteristics of Building Materials and Assemblies	Meets the National Building Code of Canada requirements
	CAN/ULC S134	Fire Test of Exterior Wall Assemblies	Complies with the fire-spread and heat-flux limitations required by the National Building Code of Canada
	CAN/ULC S138	Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration	Met the criteria of the standard
Structural	ASTM E72	Strength Tests of Panels for Building Construction	See Load Chart
	ASTM E1592	Structural Performance of Metal Roof and Siding Systems by Uniform Static Air Pressure Differences	See Load Chart
	FM 4881	Class 1 Exterior Wall Structural Performance	See FM Wall Load Chart
Thermal Performance	ASTM C518	Steady-State Thermal Transmission Properties by Means of the Heat-Flow Meter Apparatus	K-Factor of 0.126 BTU.in/hr.ft ² .°F at 40° F mean core K-Factor of 0.14 BTU.in/hr.ft ² .°F at 75° F mean core
	ASTM C1363	Thermal Performance of Building Materials and Envelope Assemblies	See Thermal Performance Guide
Air Infiltration	ASTM E283	Rate of Air Leakage Through Curtain Walls Under Specified Pressure Differences	<0.01 cfm/ft ² at 20 psf Vertical or horizontal installation
Water Infiltration	ASTM E331	Water Penetration of Exterior Walls by Uniform Static Air Pressure Differences	No uncontrolled leakage when tested to a static pressure of 20 psf Vertical or horizontal installation

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, Shield-it reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. To ensure you have the latest information available, please inquire or visit our website at shielditsystems.com



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