

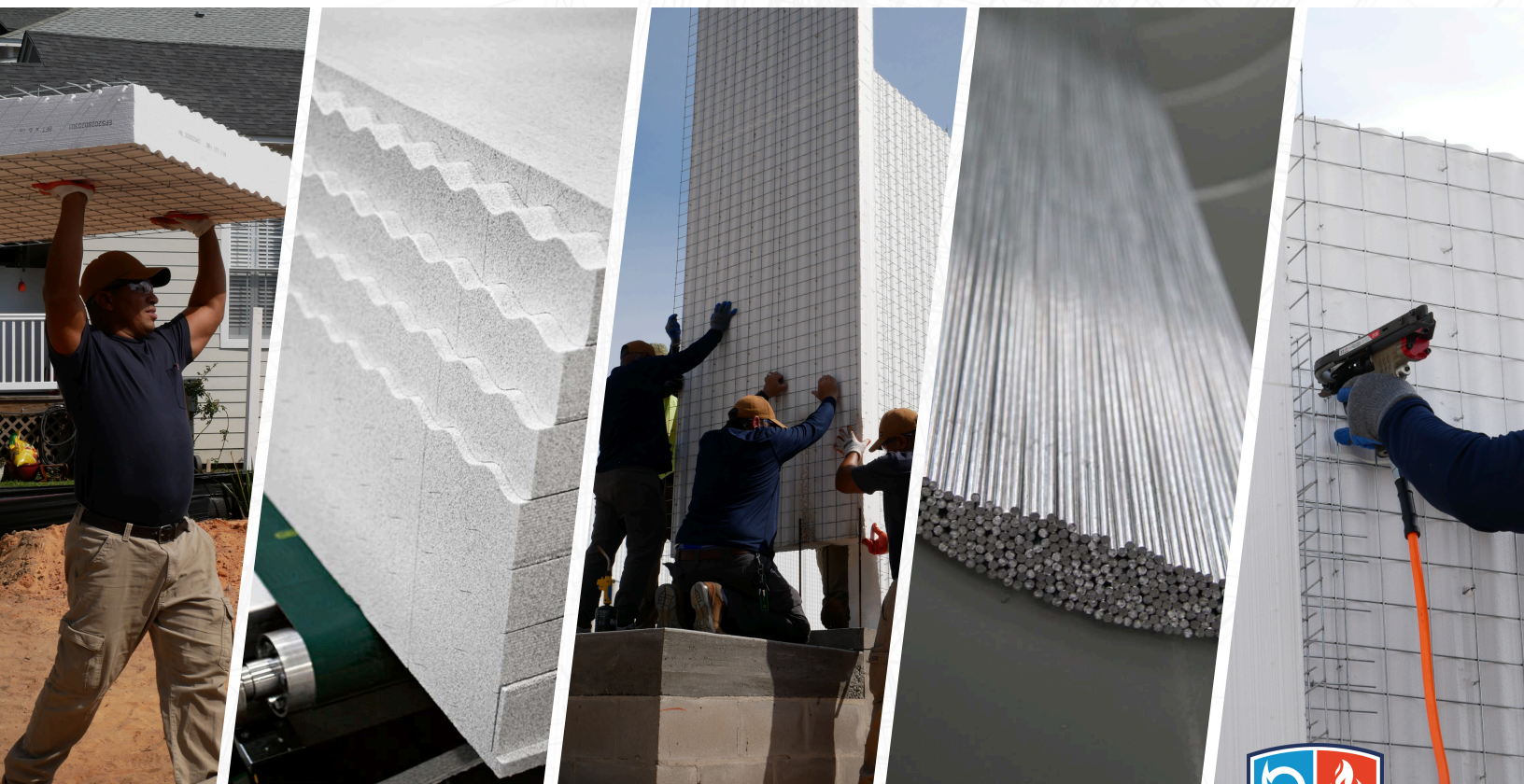


FORTIFIED
STRUCTURAL SOLUTIONS
USA

FSS SCIP CATALOG

PRODUCT TYPES | SPECIFICATIONS | PRICING

Structural Concrete Insulated Panel (SCIP)



BUILT TO ENDURE. DESIGNED TO LAST.

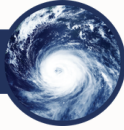


FORTIFIED SCIP CONSTRUCTION

ADVANTAGES FOR BUILDING & LIVING



Hurricane Resilient



Utility Savings



Fire Resistant



Low Maintenance



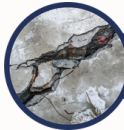
Tornado Strong



Noise Blocking



Earthquake Secure



Pest-Resistant



Insurance Savings



Environmentally Safe



KNOWLEDGE & TRAINING

Explore FSS resources, training, and organizations supporting SCIP construction.



**INSTALLER ORIENTATIONS
AND TRAINING EVENTS**



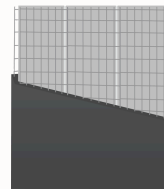
**PRIVATE
PLANT TOURS**



**WEBINARS &
CONTINUING EDUCATION
CREDITS**



**INSTALLATION MANUALS &
DESIGN RESOURCES**



NORTH
AMERICA
SCIP
ASSOCIATION

The North America SCIP Association is a professional hub connecting builders, architects, engineers, and homeowners with education, resources, and best practices for SCIP construction.



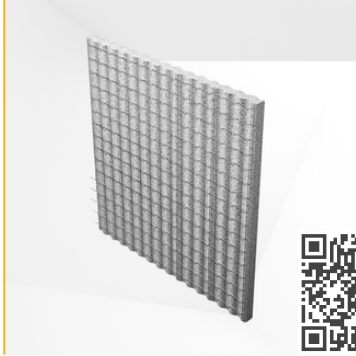
**BECOME A
FOUNDING
MEMBER**

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Panama City, FL 32405
fortifiedstructuralsolutions.com
(850) 920-9255



www.nascipassociation.org
contact@nascipassociation.org
(850) 808-4279

PANEL PRODUCTS OVERVIEW



SINGLE PANEL [FWP]

This panel consists of a sheet of polystyrene between two welded wire mesh. The polystyrene sheet can be shaped as required and the thickness can vary according to needs. The Single Panel can be used for the construction of single and multistory buildings according to the local building regulations.

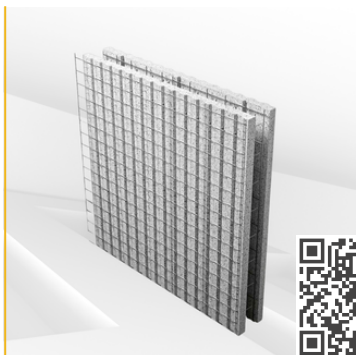
[▶ 3D VIDEO DEMO](#)



FLOOR/ROOF PANEL [FFP]

This panel is used for the construction of floors and roofs. The thickness and geometry of the panel can be varied according to the span and project requirements. Standard 2-joist or 3-joist design, with placement options of inbound or winged. Final joist requirements are determined by the structural engineer.

[▶ 3D VIDEO DEMO](#)



DOUBLE PANEL [FDP]

This ultra-reinforced panel consists of two single panels joined together with an intermediate cavity for rebar and poured concrete. The thickness of the polystyrene and the width of the cavity can be varied according to the performance required.

[▶ 3D VIDEO DEMO](#)



STAIR PANEL [FSP]

The stairs element is constituted by a suitably shaped polystyrene core, wherein the rise and tread may vary according to the needs of the project. The polystyrene core is covered by two electro-welded meshes joined by connectors. This element must be reinforced and completed on site.



Interested in Double Panels or Stair Panels? These specialty products are available through custom orders. Submit a quote request, and our team will review your project details to see if these panels are the right fit. In many cases, our standard Single Panel system provides all the structural performance needed, but we're happy to explore the best option for your design and budget.

PRODUCT TESTING & CERTIFICATIONS

Verified Structural Performance Backed by Accredited Laboratory Testing



▶ STRUCTURAL

FSS SCIP panels are approved in ESR-5623 as structural walls, floors, and roofs when designed according to ACI 318 and AC15.

▶ SEISMIC

The panels are approved for Seismic Design Categories A and B per ESR-5623, and higher seismic performance can be achieved through project-specific engineering and additional reinforcement.

▶ WIND / IMPACT

ESR-5623 allows use in ASCE 7 wind-designed structures, and supplemental Texas Tech missile testing confirms resistance to debris impacts up to 90 mph—equivalent to **approximately 225 mph hurricane conditions** depending on panel thickness.

▶ FIRE

The EPS core meets IBC 2603 flame-spread and smoke requirements, and the complete wall and roof assemblies achieved a 1-hour fire rating when tested to ASTM E119.

▶ THERMAL

The EPS insulation complies with ASTM C578, and R-value performance increases with the core thickness as listed in ESR-5623.

▶ ACOUSTIC

Laboratory testing of the SCIP panel with its standard concrete finish reports an acoustic insulation rating of $R_w \sim 37$ dB. Acoustic values increase with the core thickness.

▶ QUALITY CONTROL

All panels are produced under ICC-approved AC15 quality controls with continuous inspection by ISO-accredited third-party agencies.



Florida Product Approval

#FL46983

ICC ESR-5623

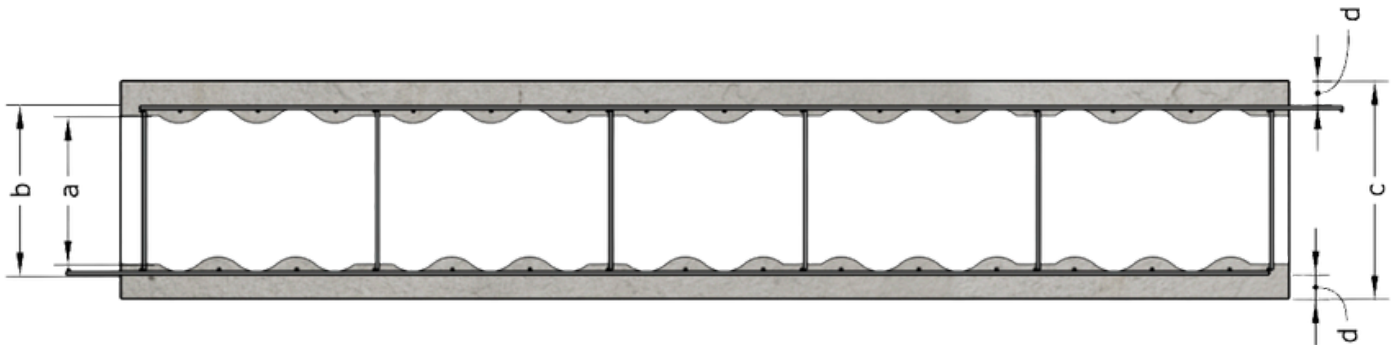
Fortified Structural Solutions LLC
previously known as Concrewall USA LLC



North America Compliance: SCIP panel manufacturers must demonstrate strict building code compliance to ensure their systems meet safety, structural, and energy performance standards. For building and design professionals, this compliance is critical because it provides assurance that the panels are tested, recognized, and approved for use in permitted projects. Professionals should look for official product report listings such as ICC-ES reports or state-specific certifications like Florida Product Approval, which confirm that the panels can be confidently specified and integrated into code-compliant designs.

FORTIFIED WALL PANELS [FWP]

Single Panel designed for walls. This product can also be used for floor and roof assemblies.



	FWP2	FWP3	FWP4	FWP5	FWP6
EPS Thickness (a)	2"	3"	4"	5"	6"
Mesh Thickness (b)	2-3/4"	3-3/4"	4-3/4"	5-3/4"	6-3/4"
Finished Thickness (c)	4-3/4"	5-3/4"	6-3/4"	7-3/4"	8-3/4"
Shotcrete (d)	1"	1"	1"	1"	1"
Shotcrete Volume (ft³/ft)	0.94	0.94	0.94	0.94	0.94
Panel Weight (lb/ft²)	0.83	0.93	1.01	1.10	1.19
Finished Weight (lb/ft²)	21.32	21.41	21.50	21.75	21.79
Thermal coefficient - R Value (F.hr.ft²/Btu) (°F)	@ 25° 8.7 @ 40° 8.3 @ 70° 7.7	@ 25° 13.1 @ 40° 12.5 @ 70° 11.6	@ 25° 17.4 @ 40° 16.7 @ 70° 15.4	@ 25° 21.8 @ 40° 20.9 @ 70° 19.3	@ 25° 26.1 @ 40° 25.0 @ 70° 23.1
Acoustic coefficient - Cw - (dB)	38.5	40	42	44.5	47



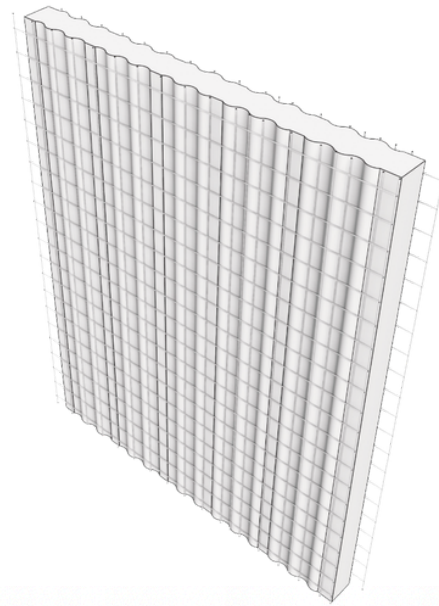
View each Product Page for more material characteristics and specifications.



FWP2

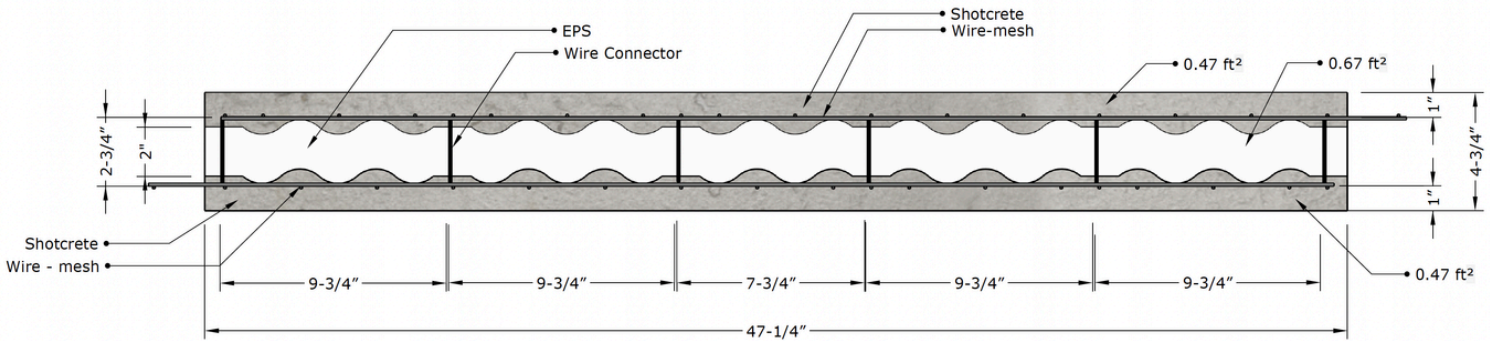
Fortified Wall Panel

(2" EPS Thickness)



SEE PAGE 5 FOR COMPARISON TABLE

FWP2 Product Specifications:



FWP2 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index <=25
 Smoke-developed index <= 450

Concrete/Mortar (applied in-situ)

Compressive Strength >2,500 PSI
 Thickness >1"
 Aggregate size < 5/8"
 Slump > 2"

Weight

Panel sheet (lb/ft²): 0.83
 Finished wall (lb/ft²): 21.32

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu) (°F)

@ 25° | 8.7
 @ 40° | 8.3
 @ 70° | 7.7

Acoustic coefficient (Cw)

38.5 dB

Wire-mesh Reinforcement

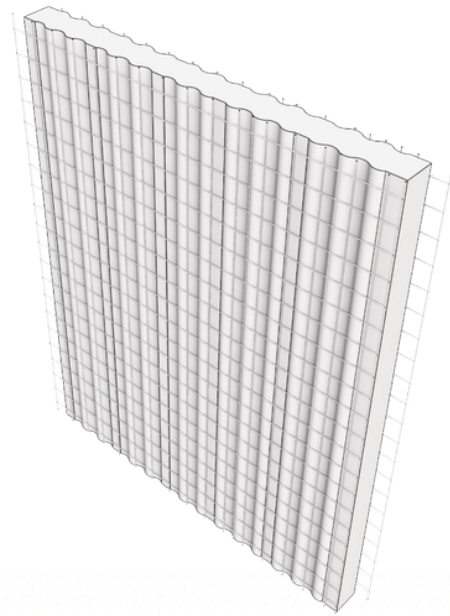
L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi



FWP3

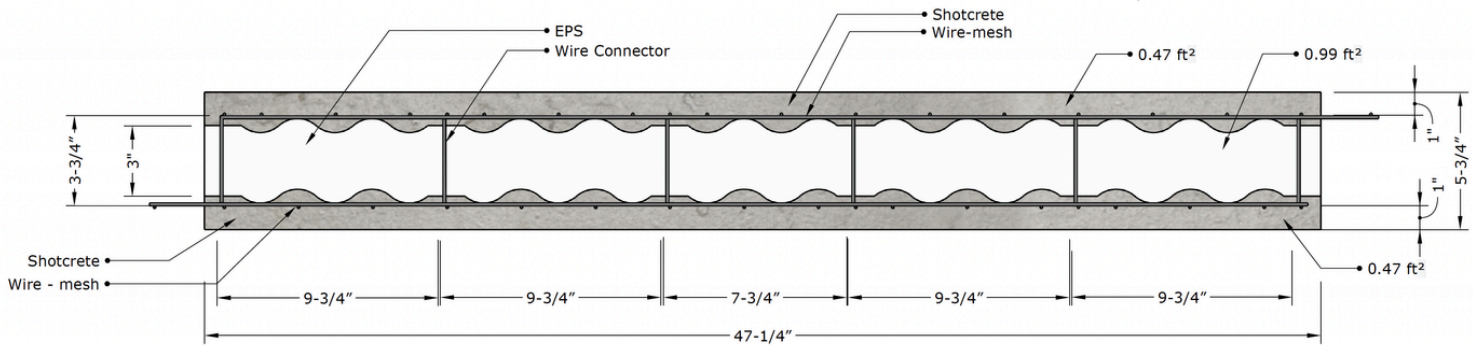
Fortified Wall Panel

(3" EPS Thickness)



SEE PAGE 5 FOR COMPARISON TABLE

FWP3 Product Specifications:



FWP3 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index ≤ 25
 Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
 Thickness > 1 "
 Aggregate size $< 5/8$ "
 Slump > 2 "

Weight

Panel sheet (lb/ft²): 0.93
 Finished wall (lb/ft²): 21.41

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 13.1
 @ 40° | 12.5
 @ 70° | 11.6

Acoustic coefficient (Cw)

40 dB

Wire-mesh Reinforcement

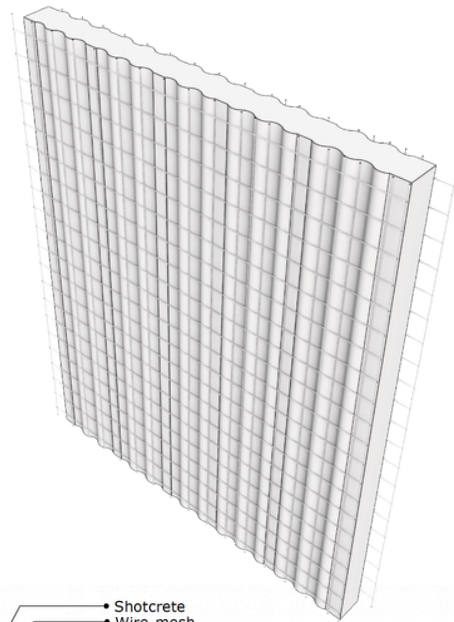
L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi



FWP4

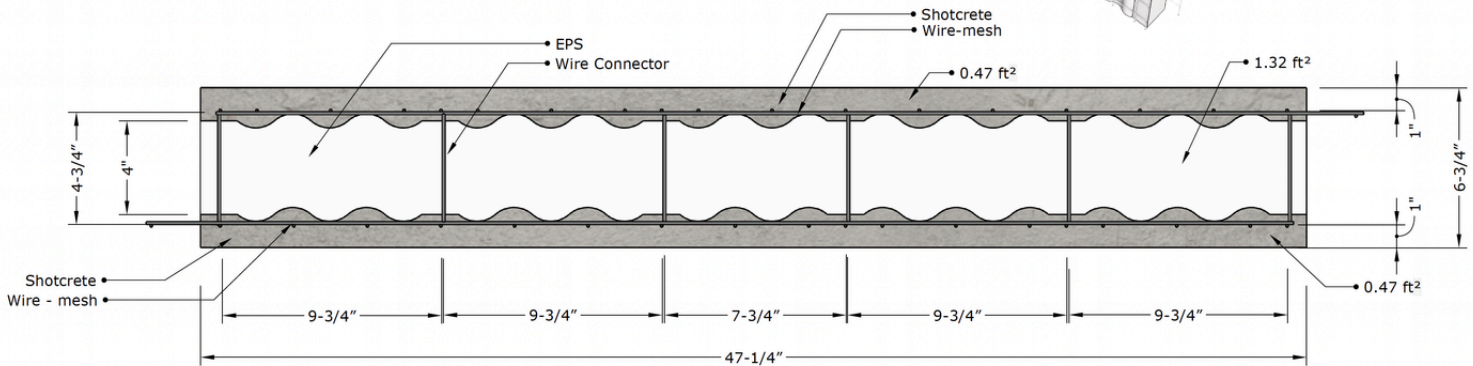
Fortified Wall Panel

(4" EPS Thickness)



SEE PAGE 5 FOR COMPARISON TABLE

FWP4 Product Specifications:



FWP4 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index ≤ 25
 Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
 Thickness > 1 "
 Aggregate size $< 5/8$ "
 Slump > 2 "

Weight

Panel sheet (lb/ft²): 1.01
 Finished wall (lb/ft²): 21.50

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 17.4
 @ 40° | 16.7
 @ 70° | 15.4

Acoustic coefficient (Cw)

42 dB

Wire-mesh Reinforcement

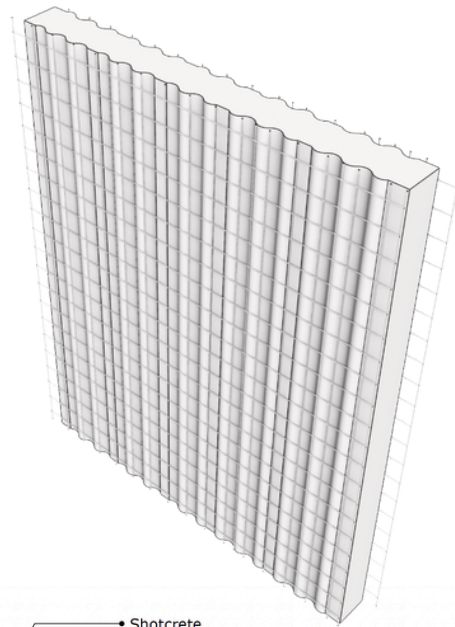
L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi



FWP5

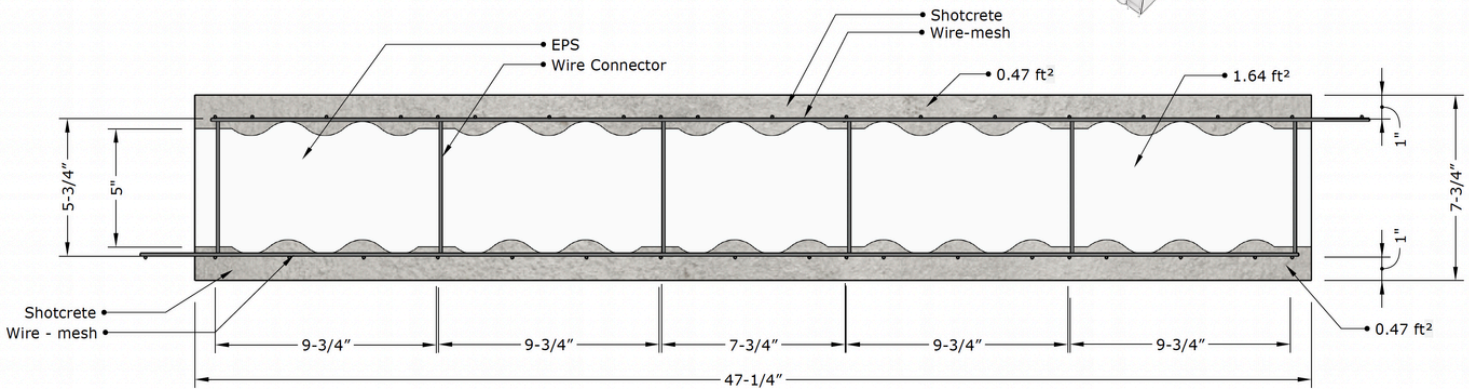
Fortified Wall Panel

(5" EPS Thickness)



SEE PAGE 5 FOR COMPARISON TABLE

FWP5 Product Specifications:



FWP5 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index ≤ 25
 Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
 Thickness > 1 "
 Aggregate size $< 5/8$ "
 Slump > 2 "

Weight

Panel sheet (lb/ft²): 1.10
 Finished wall (lb/ft²): 21.75

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 21.8
 @ 40° | 20.9
 @ 70° | 19.3

Acoustic coefficient (Cw)

44.5 dB

Wire-mesh Reinforcement

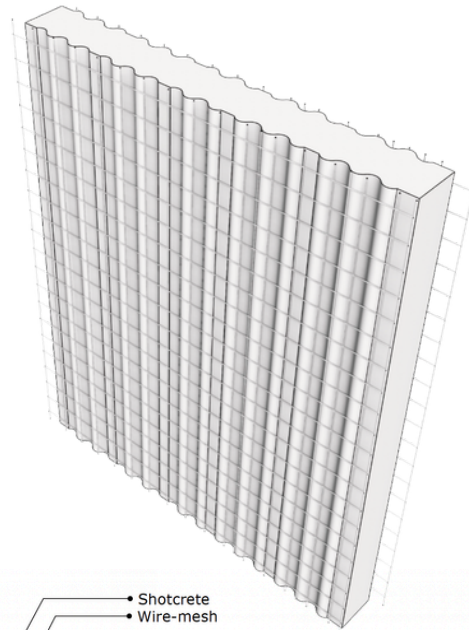
L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi



FWP6

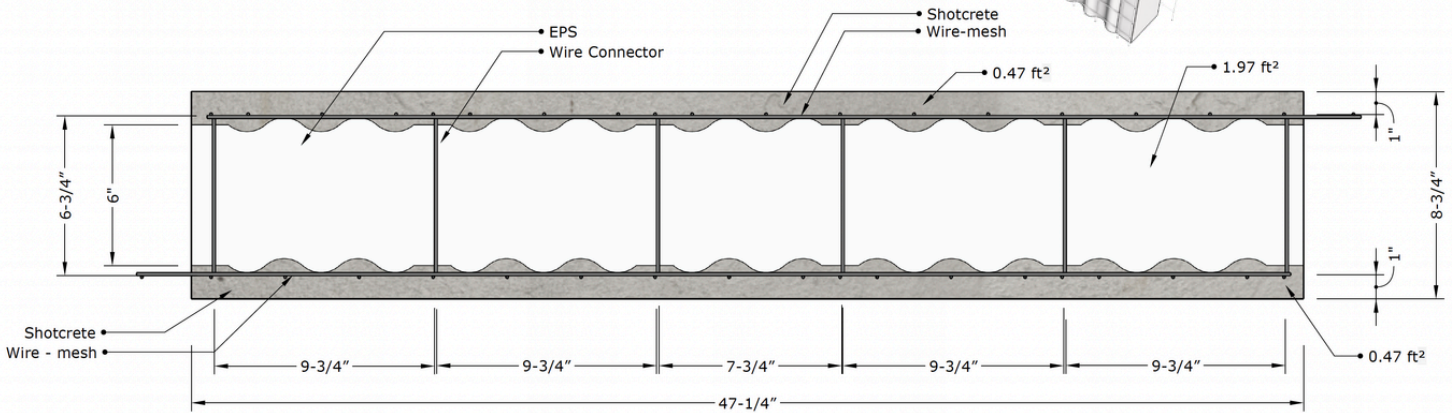
Fortified Wall Panel

(6" EPS Thickness)



SEE PAGE 5 FOR COMPARISON TABLE

FWP6 Product Specifications:



FWP6 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index ≤ 25
 Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
 Thickness > 1 "
 Aggregate size $< 5/8$ "
 Slump > 2 "

Weight

Panel sheet (lb/ft²): 1.19
 Finished wall (lb/ft²): 21.79

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 26.1
 @ 40° | 25.0
 @ 70° | 23.1

Acoustic coefficient (Cw)

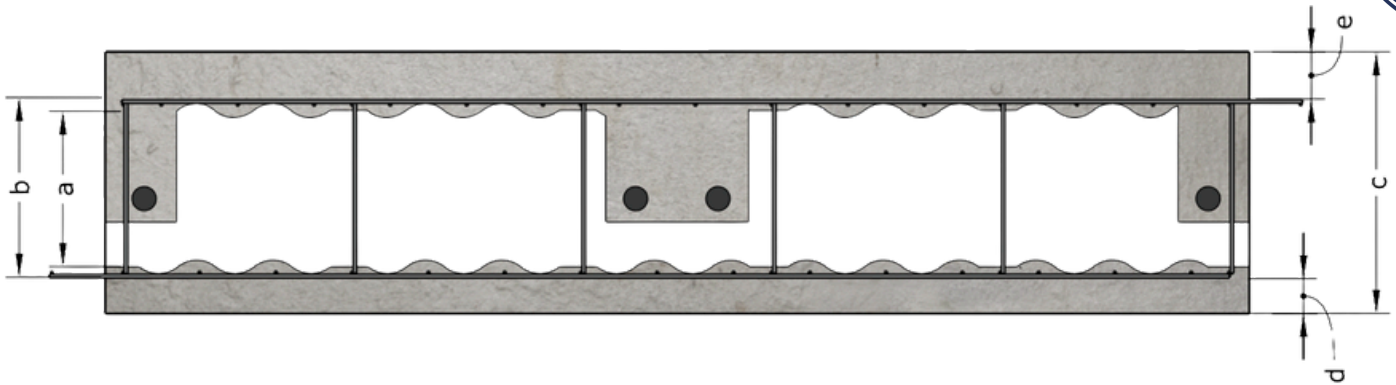
47 dB

Wire-mesh Reinforcement

L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064
 Yield Strength: 115 ksi

FORTIFIED FLOOR PANELS [FFP]

Designed for Floor and Roof Assembly



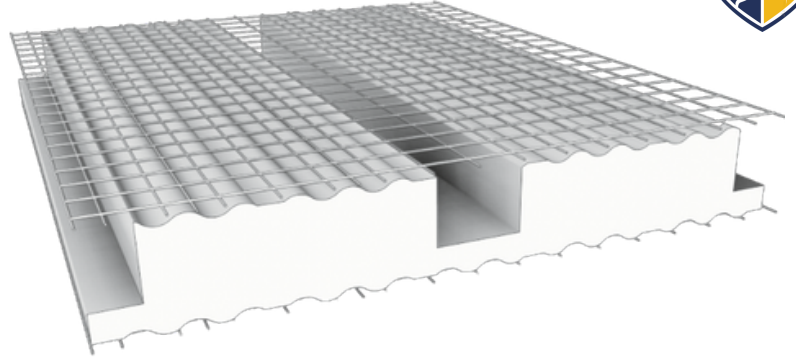
	FFP7	FFP8	FFP9	FFP10	FFP11
EPS Thickness (a)	7"	8"	9"	10"	11"
Mesh Thickness (b)	7-3/4"	8-3/4"	9-3/4"	10-3/4"	11-3/4"
Finished Thickness (c)	11-1/4"	12-1/4"	13-1/4"	14-1/4"	15-1/4"
Shotcrete (d)	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Concrete (e)	2"	2"	2"	2"	2"
Shotcrete Volume (ft³/ft)	0.64	0.64	0.64	0.64	0.64
Concrete Volume (ft³/ft)	1.15	1.21	1.46	1.53	1.60
Panel Weight (lb/ft²)	1.20	1.25	1.32	1.41	1.47
Finished Weight (lb/ ft²)	44.00	46.29	50.18	53.77	58.68
Thermal coefficient - R Value - (F.hr.ft²/Btu) (°F)	@ 25° 30.5 @ 40° 29.2 @ 70° 27.0	@ 25° 34.8 @ 40° 33.4 @ 70° 30.8	@ 25° 39.2 @ 40° 37.5 @ 70° 34.7	@ 25° 43.5 @ 40° 41.7 @ 70° 38.5	@ 25° 47.9 @ 40° 45.9 @ 70° 42.4
Acoustic coefficient - Cw - (Db)	49.50	52	54.50	57	59.5

Fortified Floor Panel (FFP) includes standard 2-joint or 3-joint design, with placement options of inbound or winged. Final joint requirements are determined by the structural engineer. View each Product Page for more material characteristics and specifications.



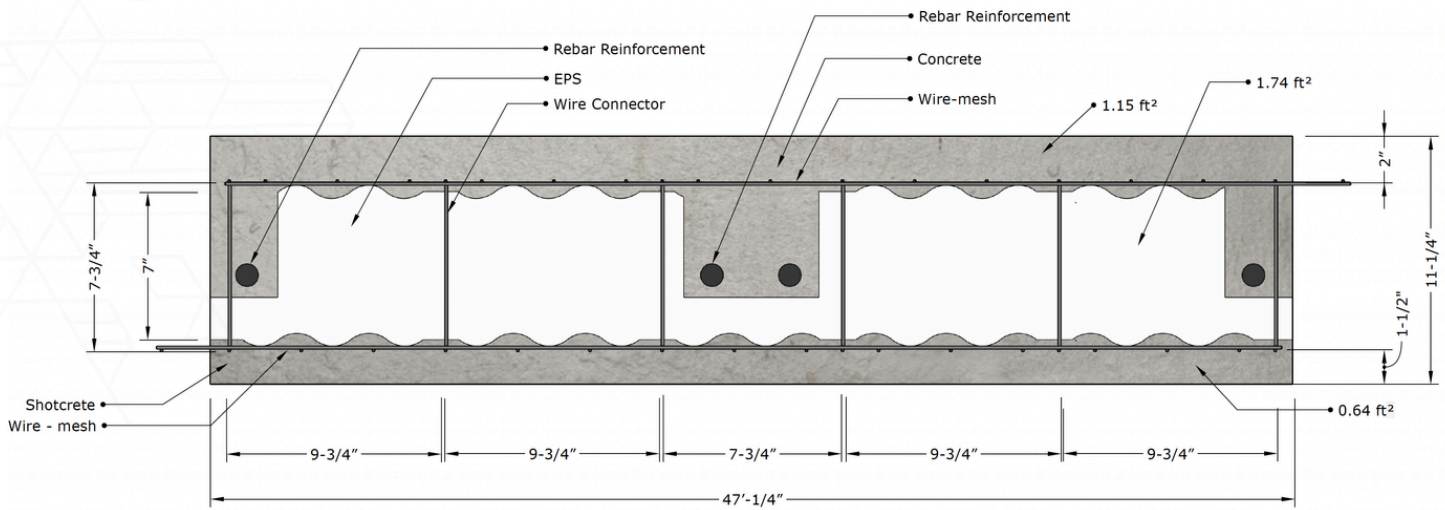
FFP7

Fortified Floor/Roof Panel (7" EPS Thickness)



SEE PAGE 11 FOR COMPARISON TABLE

FFP7 Product Specifications:



FFP7 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
Density 1 pound per cubic foot
Flame-spread index ≤ 25
Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
Thickness > 1 "
Aggregate size $< 5/8$ "
Slump > 2 "

Weight

Panel sheet (lb/ft²): 1.20
Finished wall (lb/ft²): 44.00

Wire Connector

11 gauge galvanized wire - ASTM A1064
Yield strength 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 30.5
@ 40° | 29.2
@ 70° | 27.0

Acoustic coefficient (Cw)

49.50 dB

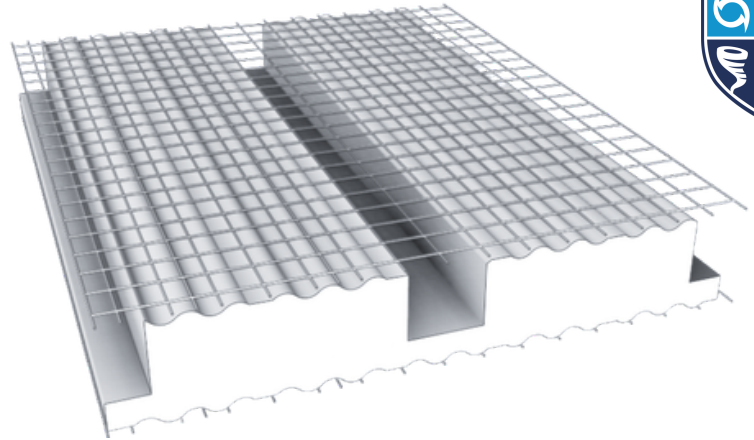
Wire-mesh Reinforcement

L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064, Yield strength 115 ksi



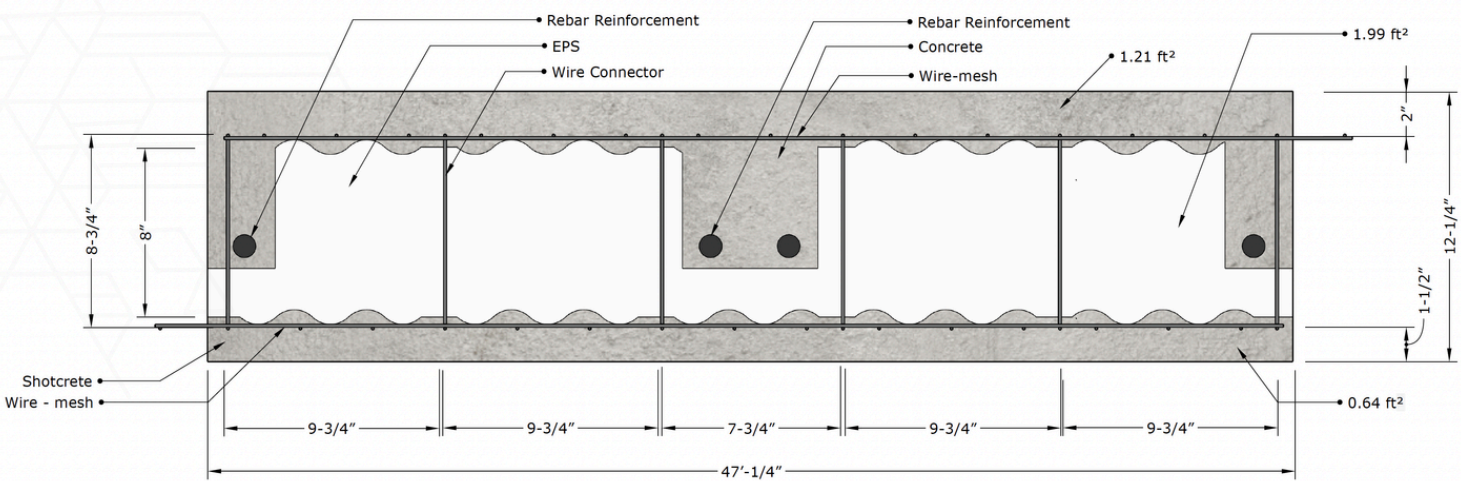
FFP8

Fortified Floor/Roof Panel (8" EPS Thickness)



SEE PAGE 11 FOR COMPARISON TABLE

FFP8 Product Specifications:



FFP8 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index <=25
 Smoke-developed index <= 450

Concrete/Mortar (applied in-situ)

Compressive Strength >2,500 PSI
 Thickness >1"
 Aggregate size < 5/8"
 Slump > 2"

Weight

Panel sheet (lb/ft²): 1.25
 Finished wall (lb/ft²): 46.29

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield strength 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 34.8
 @ 40° | 33.4
 @ 70° | 30.8

Acoustic coefficient (Cw)

52 dB

Wire-mesh Reinforcement

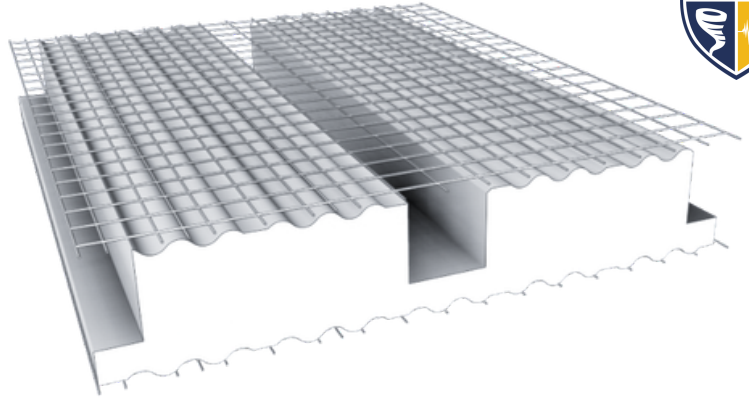
L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064, Yield strength 115 ksi



FFP9

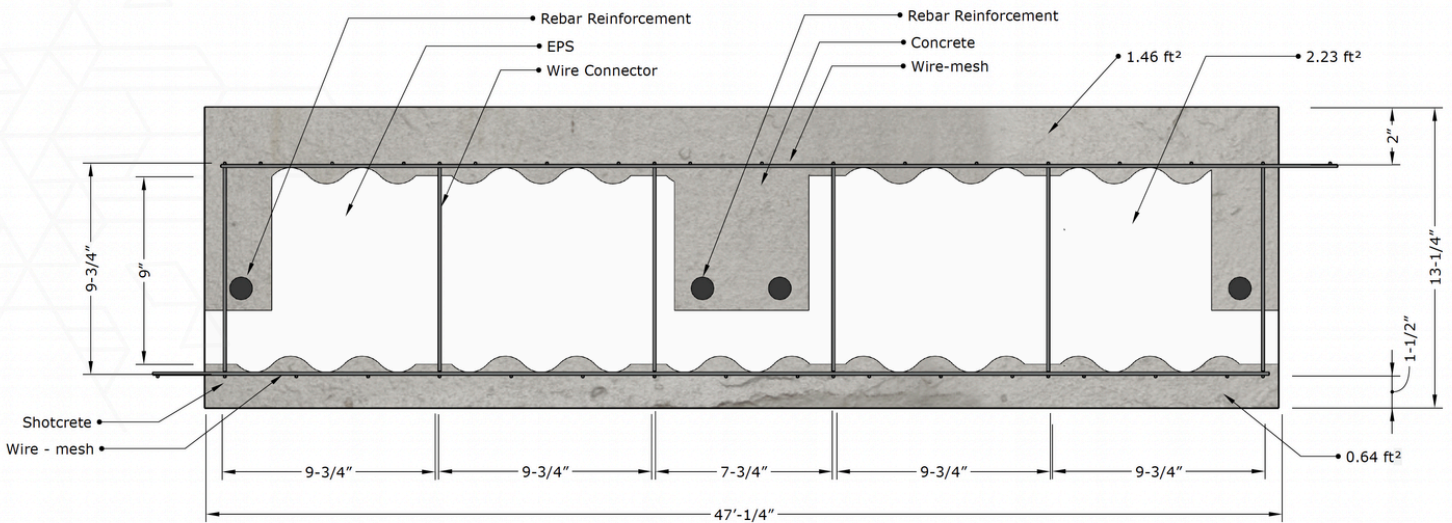
Fortified Floor/Roof Panel

(9" EPS Thickness)



SEE PAGE 11 FOR COMPARISON TABLE

FFP9 Product Specifications:



FFP9 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index ≤ 25
 Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
 Thickness > 1 "
 Aggregate size $< 5/8$ "
 Slump > 2 "

Weight

Panel sheet (lb/ft²): 1.32
 Finished wall (lb/ft²): 50.18

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield strength 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 39.2
 @ 40° | 37.5
 @ 70° | 34.7

Acoustic coefficient (Cw)

54.50 dB

Wire-mesh Reinforcement

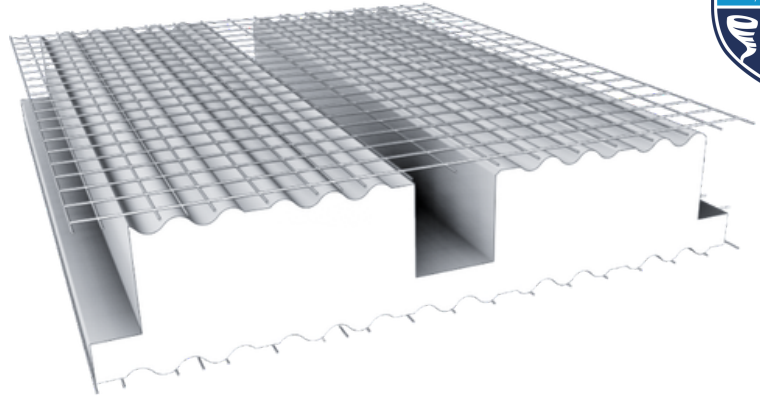
L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064, Yield strength 115 ksi



FFP10

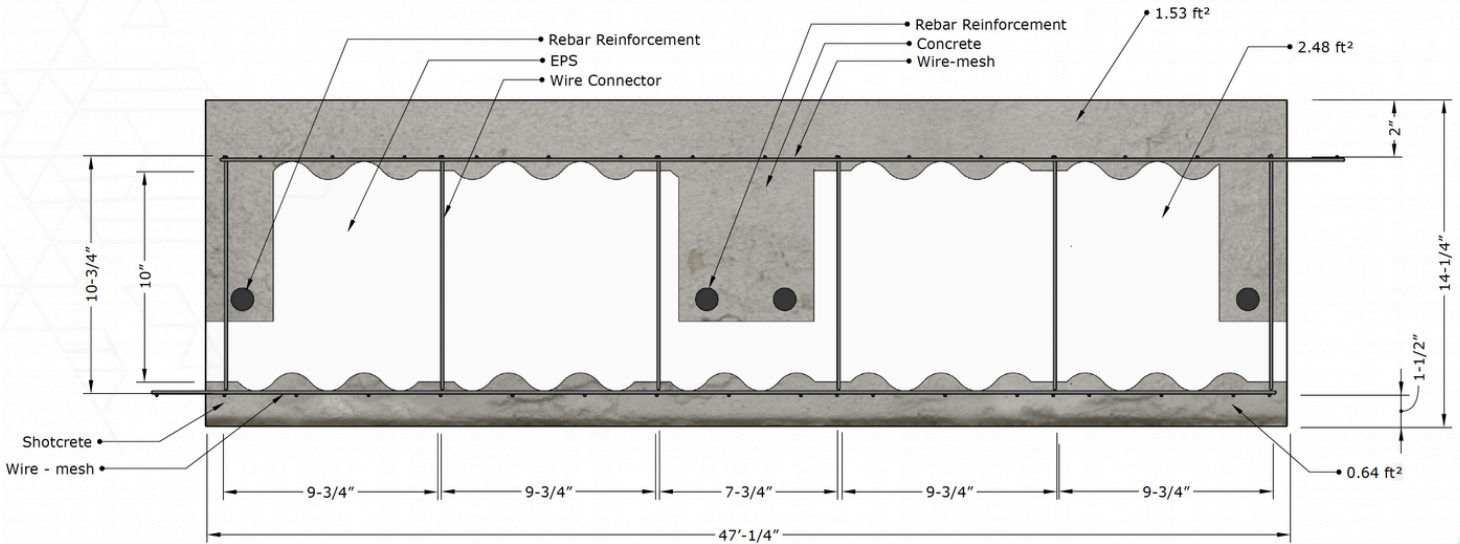
Fortified Floor/Roof Panel

(10" EPS Thickness)



SEE PAGE 11 FOR COMPARISON TABLE

FFP10 Product Specifications:



FFP10 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
 Density 1 pound per cubic foot
 Flame-spread index <=25
 Smoke-developed index <= 450

Concrete/Mortar (applied in-situ)

Compressive Strength >2,500 PSI
 Thickness >1"
 Aggregate size < 5/8"
 Slump > 2"

Weight

Panel sheet (lb/ft²): 1.41
 Finished wall (lb/ft²): 53.77

Wire Connector

11 gauge galvanized wire - ASTM A1064
 Yield strength 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 43.5
 @ 40° | 41.7
 @ 70° | 38.5

Acoustic coefficient (Cw)

57 dB

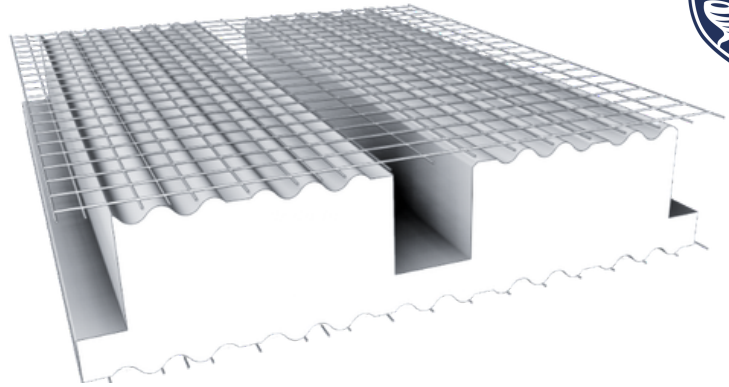
Wire-mesh Reinforcement

L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064, Yield strength 115 ksi



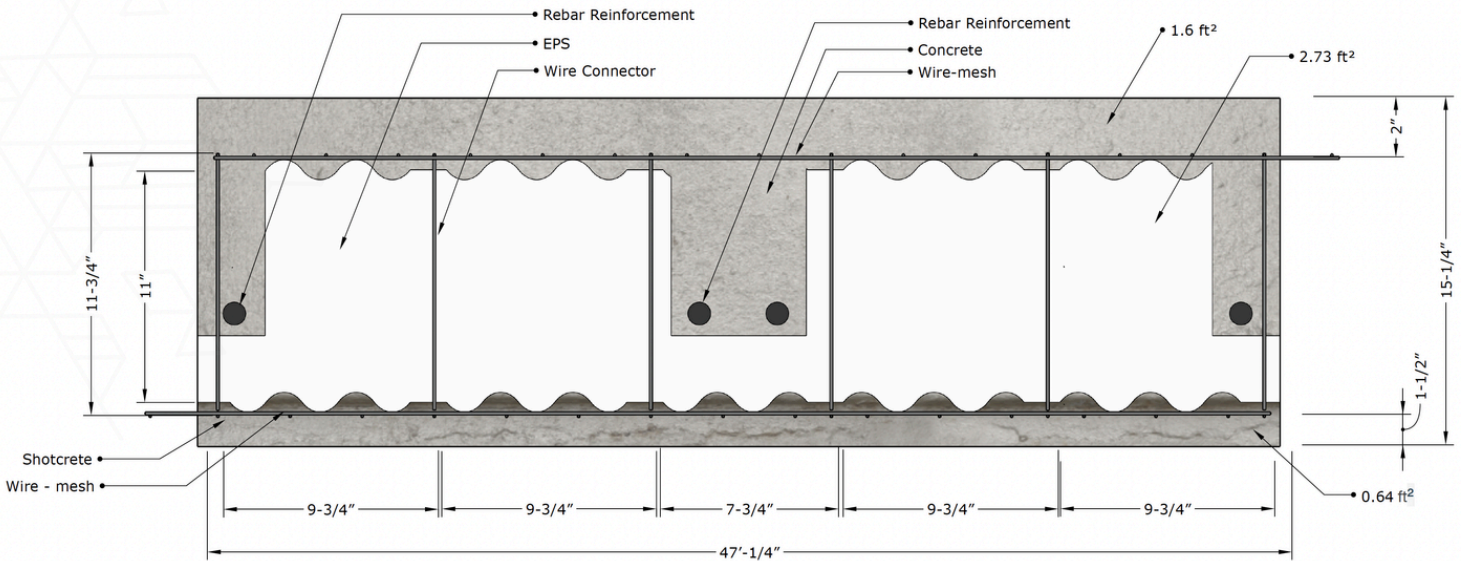
FFP11

Fortified Floor/Roof Panel
(11" EPS Thickness)



SEE PAGE 11 FOR COMPARISON TABLE

FFP11 Product Specifications:



FFP11 MATERIALS CHARACTERISTICS

Expanded Polystyrene (EPS) Foam

Type I modified EPS Board - ASTM C578
Density 1 pound per cubic foot
Flame-spread index ≤ 25
Smoke-developed index ≤ 450

Concrete/Mortar (applied in-situ)

Compressive Strength $> 2,500$ PSI
Thickness > 1 "
Aggregate size $< 5/8$ "
Slump > 2 "

Weight

Panel sheet (lb/ft²): 1.47
Finished wall (lb/ft²): 58.68

Wire Connector

11 gauge galvanized wire - ASTM A1064
Yield strength 115 ksi

Thermal coefficient (R Value)

(F.hr.ft²/Btu)(°F)

@ 25° | 47.9
@ 40° | 45.9
@ 70° | 42.4

Acoustic coefficient (Cw)

59.5 dB

Wire-mesh Reinforcement

L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064, Yield strength 115 ksi

CORNER MESH

90° Panel-to-Panel Connection Reinforcement



Small Corner

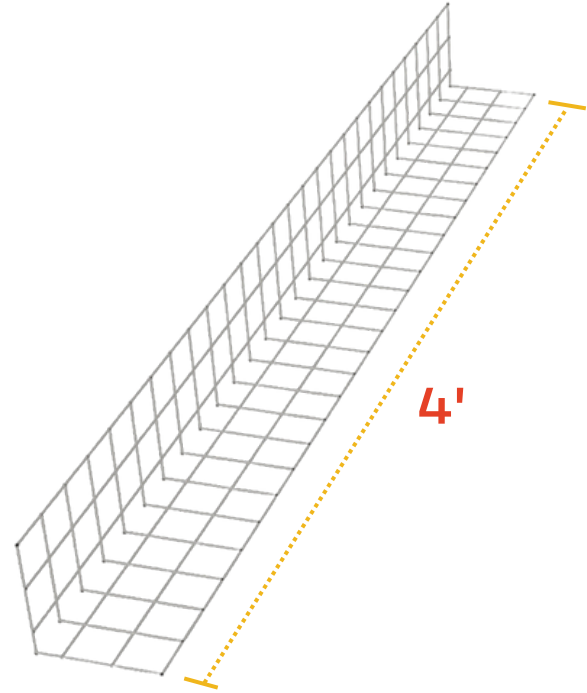
4' x 7" x 7"

Medium Corner

4' x 10" x 10"

Large Corner

4' x 15" x 15"



Shop Quick Ship Accessories Here:

SCAN HERE



MATERIALS CHARACTERISTICS

DESCRIPTION:

Consists in an electro-welded reinforcing mesh bent at 90 degrees securing wall-to-wall panel joints and wall-floor/roof joints.

USE:

Corner reinforcement for interior or exterior panel-to-panel connection joints.

Wire-mesh Reinforcement

L 3.15" x T 2.95" 11 gauge galvanized wire - ASTM A1064
Yield strength 115 ksi

U-MESH

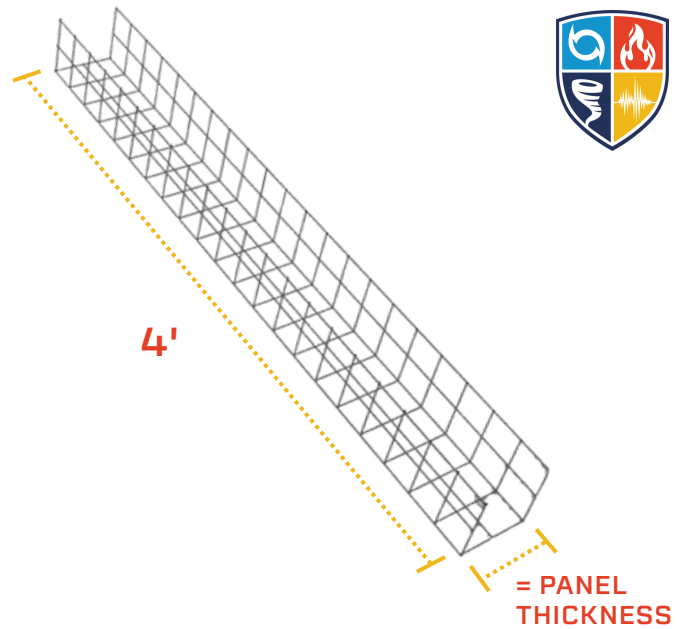
Openings and Edge Reinforcement



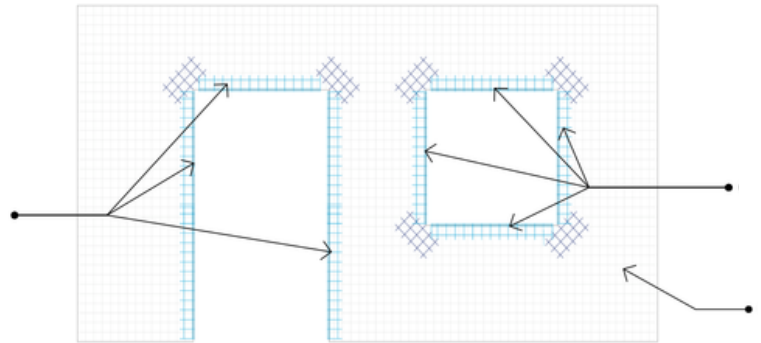
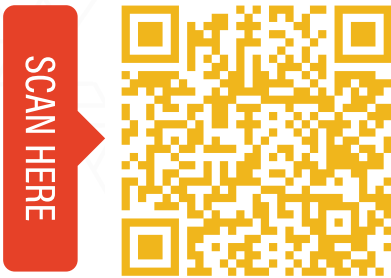
1 The thickness of U-Mesh corresponds with the thickness of the chosen panel.

Example:

U-Mesh4 used with FWP4



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MATERIALS CHARACTERISTICS

DESCRIPTION:

Consists in an electro-welded reinforcing mesh with a U shape.

USE:

Reinforcement frame for surface edges and openings using the Fortified panel products.

Wire-mesh Reinforcement

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Yield strength 115 ksi



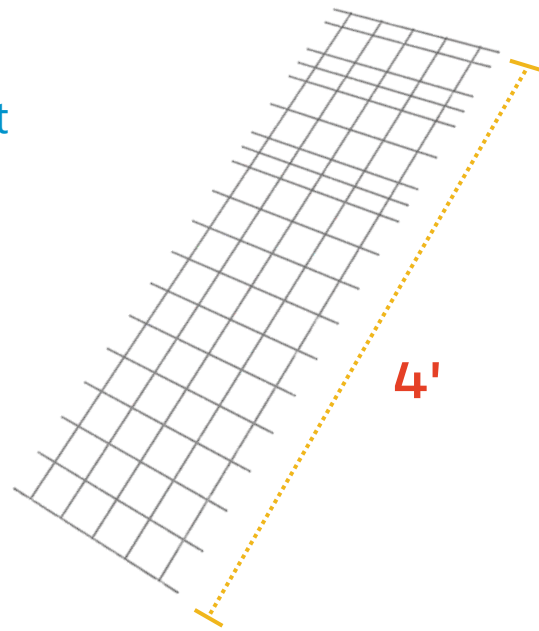
FLAT MESH

Openings and Surface Reinforcement

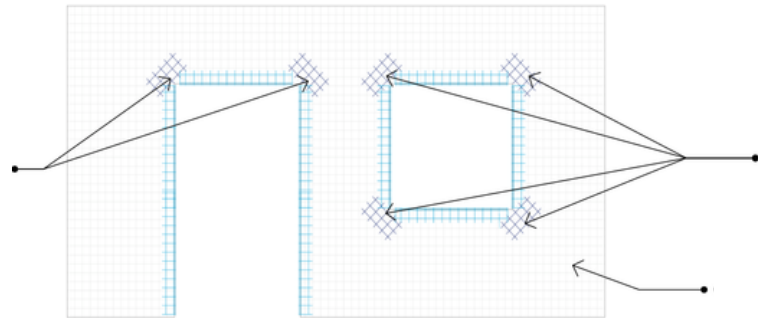
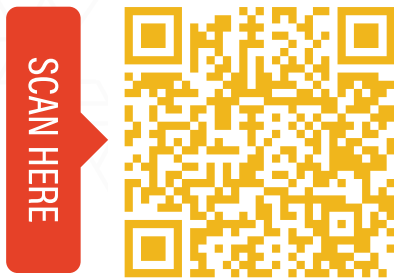
 Small Flat
4' x 12"

Medium Flat
4' x 14"

Large Flat
4' x 20"



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MATERIALS CHARACTERISTICS

DESCRIPTION:

Consists of an electro-welded reinforcing mesh.

USE:

Reinforcement for opening perimeters of windows and doors at a 45 degree rotation for the Fortified panel products.

Wire-mesh Reinforcement

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Yield strength 115 ksi