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TECHNICAL INFORMATION

PolySteel Form Technical Data Sheet

PRODUCT DESCRIPTION

An expanded polystyrene concrete forming unit which is used to construct a monolithic reinforced concrete wall. The forms remain in place providing a super energy efficient concrete wall and finished with conventional interior and exterior wall coverings.

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MATERIALS OF MANUFACTURE

PolySteel

- Molded expanded polystyrene (EPS), self-extinguishing, confirming to ASTM ASTM C 578
- Galvanized welded steel cross ties, 11-gauge minimum thickness, wire welded in at least 40 locations
- 22-gauge x 1½" wide galvanized steel attachment furring strips, recessed 1/2"

PolyPro

- Molded expanded polystyrene (EPS), self-extinguishing, confirming to ASTM ASTM C 578
- Cross ties and furring strips: high impact polypropylene copolymer resin with excellent impact resistance at low temperatures and a good stiffness / impact balance
- 1½" x 0.1575" furring strips, recessed ½"


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NOMINAL DIMENSIONS			
	6" Form	8" Form	10" Form
PS•3000			
Length	48"	48"	48"
Height	16"	16"	16"
Width	9.25" (6" core)	11" (8" core)	14" (10" core)
PS•4000			
Length	48"	48"	--
Height	12" and 24"	12" and 24"	--
Width	11" (6" core)	13" (8" core)	--
PolyPro			
Length	48"	48"	--
Height	24"	24"	--
Width	11" (6" core)	13" (8" core)	--

PolyPro creates variable wall width from 4" to 24" and beyond.

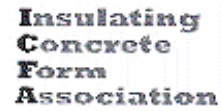
CONCRETE REQUIREMENTS TABLE (Adobe® Acrobat files)

Typical Design Values	PS•3000	PS•4000	PolyPro
Expanded Polystyrene Density	1.5 lbs. / cu. ft.	1.5 lbs. / cu. ft.	1.5 lbs. / cu. ft.
Average thickness of EPS	2.4" per side (6" core); 2.5" per side (8" core); 3.0" per side (10" core)	2.5" per side	2.5" per side
R-Value of 1.5 lb. / cu ft EPS	4.17 / inch	4.17 / inch	4.17 / inch
K-Factor of 1.5 lb. / cu ft EPS	0.24 / inch	0.24 / inch	0.24 / inch
Average R-Value Per Form	20-25 (See Effective R-Value)	22 (See Effective R-Value)	22 (See Effective R-Value)
Thermal mass with concrete	56 lbs. /sq. ft. (6" core), 76 lbs. /sq. ft. (8" core), 100 lbs./sq. ft. (10" core)	72 lbs. /sq. ft. (6" core), 96 lbs. /sq. ft. (8" core)	12 lbs. /sq. ft. per inch of core thickness
Air Infiltration Comparison	25% versus wood frame	25% versus wood frame	25% versus wood frame
*Effective R-value for PolySteel Wall	R26 to R50+	R26 to R50+	R26 to R50+
Water absorption (volume)	Less than 3% (ASTM C272)	Less than 3% (ASTM C272)	Less than 3% (ASTM C272)
Water Vapor	0.93 perms per 1.5" (minimum)	0.56 perms per 2.5" (minimum)	0.56 perms per 2.5" (minimum)
Water Vapor / Permeance	1.27 perms per inch	1.27 perms per inch	1.27 perms per inch
Sound class	48 with 1/2" drywall	57 minimum (6" core)	57 minimum (6" core)
Fire Wall	4 hours, without the addition of any wall coverings to assist in its performance	4 hours, without the addition of any wall coverings to assist in its performance	TBD
EPS compressive strength	15-21 psi (10% deformation)	15-21 psi (10% deformation)	15-21 psi (10% deformation)
Concrete compressive strength	2,500 psi (typical)	2,500 psi (typical)	2,500 psi (typical)

Concrete pouring temperature	Down to 0°F (-18° C)	Down to 0°F (-18° C)	Down to 0°F (-18° C)
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