

A.8 TECHNICAL DATA

POLYSTEEL® FORM TECHNICAL DATA SHEET	
PRODUCT DESCRIPTION	
An expanded polystyrene concrete forming unit which is used to construct a solid, monolithic concrete wall. The Forms remain in place providing a super energy efficient concrete wall and are finished with conventional interior and exterior wall coverings.	
MATERIALS OF MANUFACTURE	
<ul style="list-style-type: none"> • Molded expanded polystyrene (EPS), self-extinguishing, conforming to ASTM C 578 • Galvanized steel wire, 11 gauge • Galvanized steel strip, 22-gauge 	
NOMINAL DIMENSIONS & WEIGHT	
Length	48"
Height	24" (PS•4000-2), 12" (PS•4000-1)
Width	11" (6" core), 13" (8" core)
Surface Area	8.00 sq. ft. (PS•4000-2), 4.00" (PS•4000-1)
Weight	6-14 lbs. per PolySteel Form
CONCRETE VOLUMES	
6" core	0.037 cu yd per unit (1 yd of concrete fills 6.75 Forms)
8" core	0.200 cu yd per unit (1 yd of concrete fills 5 Forms)
TYPICAL DESIGN VALUES	
Expanded Polystyrene density	1.5 lbs./cu ft
Thickness of EPS	2.5" per side
R-value of 1.5 lb./cu ft EPS	4.17/inch
U-factor of 1.5 lb./cu ft EPS	0.24/inch
Nominal R-value Per Form	20-25 (See Effective R-Value Section A.4)
Weight with concrete	72 lbs./sq. ft (6"), 96 lbs. (8")
Air infiltration comparison	25% versus wood frame
Effective R-value For PolySteel Wall	R26 to R50+
Water absorption (volume)	Less than 3% (ASTM C272)
Water Vapor Permeability	1.39 perm-inch (ASTM E96)
Water Vapor Permeance	0.56 perms per 2.5" (minimum)
Sound Transmission Coefficient (STC)	52 (minimum) with 1/2" drywall
Fire Wall (ASTM-E119)	4 hours without any wall covering
EPS compressive strength	15-21 psi (10% deformation)
Concrete compressive strength	2,500 psi (typical) (3,000 psi in high seismic areas)
Ambient temperature for concrete placement	Down to 0°F (-18° C)