



# Product data sheet

## Smartbloc System I (L)

### Product description

High insulation and fast building construction system using light cement and EPS proprietary building blocks with three layers for strength and insulation, the Smartbloc System I is designed for building insulated wall structures able to reach a U-Value lower than 0.16 with just 5 cm of rockwool. Use steel battens fasten in roof and floor.

Smartbloc blocks are stacked without the use of mortar and instead use  $\varnothing 12$ cm EPS locking pins to precisely adjust the blocks into correct position. Structural resistance is obtained by filling with reinforced concrete the remaining holes to form a grid of high-density vertical pillars locked horizontally by a reinforced concrete lintel cast inside the U-blocs enabling a self-supporting construction of more than 2 floors.

Reinforced concrete consumption is approx. 25 liters per  $m^2$  of wall.

Fire resistance is REI60. The plastered wall contribution to fire is equivalent is Euroclass A1 .

Always assemble in accordance with the manufacturer's instructions.

### Properties for System1 Corner Bloc (L-Bloc)

BLOC	Values	Norms	Dimensions (mm)
Length	750 mm $\pm 3$ mm		System1 Corner Block (L-Bloc) 
Width	400 mm $\pm 3$ mm		
Height	300 mm $\pm 3$ mm		
Number of blocks per Sqm.	3,7 blocks/ $m^2$		
Density dry	235 $kg/m^3$	EN 772-13:2002	
Contribution to Fire	B-s1, d0	ISO 11925-2:2010, 11925-2:2010/Cor1:2011 EN 13501-1:2007+A1:2009	
Thermal conductivity	0,055 W/(m.K)	NS-EN 12644	
<b>SYSTEM 1 WALL</b>		<b>Values</b>	
Reinforced Concrete Pillar Size	$\varnothing 12$ cm (at least one every 60cm)		
Steel Rebars	$\varnothing 12$ mm (x1, x2 or x3)		
Concrete used for filling	C30/C35	Note: Aggregate size 0/8 and slump 220mm	
Load capacity	More than 2 Floors		
Airborne Sound insulation	37 dB/55 dB*	ISO 10140-1:2010; ISO 10140-2:2010; ISO 717-1:2013	
Fire Resistance (naked wall):	REI60	NS-EN 1365-1 135; NS-EN-13501-2	
Contribution to Fire	A1 (mortar covered wall)	EN 998-1:2010	

\* With 100 mm Rockwool (28  $kg/m^3$ ) and plaster board