



Product data sheet

Smartbloc System I (U)

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

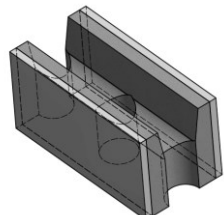
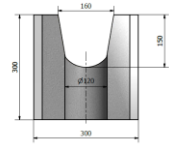
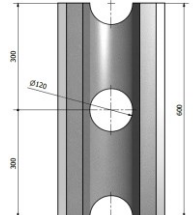
Smartbloc blocks are stacked without the use of mortar and instead use Ø12cm EPS locking pins to precisely adjust the blocks into correct position. Structural resistance is obtained by filling with reinforced concrete the remaining holes to form a grid of high-density vertical pillars locked horizontally 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 m² 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

BLOC	Values	Norms	Dimensions (mm)
Length	600 mm ±3mm		System1 Lintel Block (U-Bloc)   
Width	300 mm ±3mm		
Height	300 mm ±3mm		
Number of blocks per Sqm.	5,55 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	
SYSTEM 1 WALL			
	Values		
Reinforced Concrete Pillar Size	Ø12 cm (at least one every 60cm)		
Steel Rebars	Ø12mm (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/m³) and plaster board