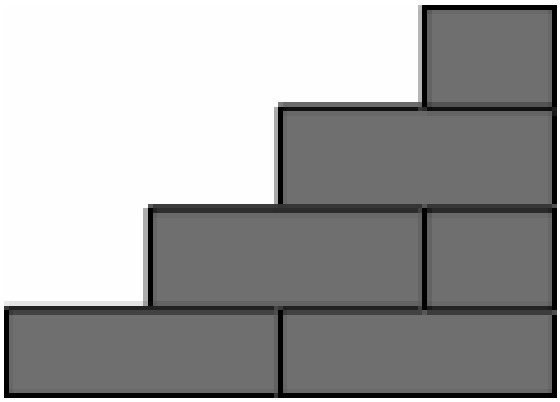
Seitz + Kerler GmbH + Co. KG

SEILO Röbalith bricks



Röbalith bricks with the associated joint fillers are used for the construction of radiation protection walls.

We produce 5 types of Röbalith bricks with the designations Rö 2, Rö 4, Rö 6, Rö 12 and Rö 12 S. All of them have the common format of a clay brick, 240 x 115 x 71 mm, but differ in the individual and volume weight and in the radiation protection coefficient.

In general, the following is provided:

For diagnostic X-ray systems Röbalith bricks Rö 2 and Rö 4, for therapeutic X-ray systems Röbalith bricks Rö 4 and Rö 6. In the case of gamma radiation, Röbalith bricks Rö 6, Rö 12 and Rö 12 S can be used.

Röbalith bricks must be laid using the associated joint filler that ensures the same radiation protection as the bricks.

Röbalith walls combine the static stiffness of a normal clay brick wall with the required radiation protection and is therefore extremely space and cost-saving.

Dimensions and volume weight are within the usual tolerance band. The specified lead equivalents were established by measuring a wall section (including joint).

Technical data:

Röbalith brick designation	Dimensions in mm	Approximate unit weight in kg	Approximate volume weight in kg/dm^3
Rö 2	240 x 115 x 71	5.5	2.8
Rö 4	240 x 115 x 71	6.3	3.2
Rö 6	240 x 115 x 71	6.9	3.5
Rö 12	240 x 115 x 71	7.3	3.7
Rö 12 S	240 x 115 x 71	7.5	3.8

Permissible compressive stress according to DIN 1053 corresponds to compressive strength class 12 MG III.

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Absorption values:
Lead equivalents – in mm of lead for areas exposed to X-rays and soft γ radiation

Röbalith brick designation	Wall thick-ness	Tube voltage/energy					
		100 kV	150 kV	200 kV	250 kV	300 kV	360 kV
Rö 2	11.5 cm 24.0 cm	10.0	4.5	4.4 9.7	5.0 11.5	5.5 13.0	5.2 18.7
Rö 4	11.5 cm 24.0 cm	16.0	7.0	6.8 14.8	7.7 18.0	8.0 20.0	13.7 39.2
Rö 6	– Not efficient in the area of X-ray applications						
Rö 12	– Suitable in the area of isotopes						
Rö 12 S	– Values from proof calculations to DIN 6812, 6844, 6846, 6847 and 25425						

For producing the joint mortar, the joint filler materials have to be mixed with cement only according to the weight ratios given in the table below. Water must be added to provide the usual consistence of mortar used for construction.

Mortar mixture: (for 1 m^3 finished mortar)

Aggregates	Röbalith bricks Rö 2 + Rö 4	Räbalith bricks Rö 6	Röbalith bricks Rö 12 + Rö 12 S
Cement CEM I 32.5	340 kg	370 kg	370 kg
Barite sand of natural humidity	3000 kg	2250 kg	2050 kg
Fe granulate	–	870 kg	1350 kg
Water	approx. 120 l	approx. 130 l	approx. 140 l

We supply mortar aggregates in 50 and 25-kg bags, or, for greater demands, in bulk units.

Material requirement: (for 1 m^2 masonry)
To determine the required bricks and joint filler, the planned masonry thickness must be specified.

Wall thickness in cm	Bricks per m^2 No.	Mortar aggregates in kg per m^2					
		Rö 2	Rö 4	Rö 6		Rö 12 + Rö 12 S	
		Barite	Barite	Barite	Fe gran.	Barite	Fe gran.
7.1	35	45	45	35	15	30	20
11.5	50	85	85	70	30	60	40
24.0	100	200	200	160	60	140	90
36.5	150	280	280	230	90	200	130
49.0	200	400	400	320	120	270	180
per m^3 masonry	400	760	760	610	240	560	370

Processing:
The bricks are to be laid according to the usual procedures for normal clay bricks. However, it must be made sure that the joints are thoroughly filled!