



BARIWALL BARYTES SHIELDING BRICKS

Bariwall Barytes Shielding Bricks are produced from high density naturally occurring barium sulphate and are designed for radiation protection in hospitals, research laboratories, factories etc.

Walls may be built by any competent bricklayer according to normal building practice, providing the following recommendations are used to ensure the integrity of the protection :

1. All joints must be made of Barytes Jointing Sand and Cement mortar.
2. The Barytes mortar should be made to a mix of 9 parts Barytes Jointing Sand to 1 part Cement by weight.
3. The joints should not exceed 10mm in thickness and must be made across the full width of the bed/end.
4. The thickness of the bricks must not be altered by chasing or any other purpose without an insert of lead or other material to replace the lost shielding value.
5. Where a wall of multi brick thickness is to be built, the bricks should be bonded together with Barytes mortar. Allow 2 kg of Barytes Jointing Sand per brick in this instance.

General requirements per square metre for walling 105mm thick are 65 bricks and 100 kg Barytes Jointing Sand.

Bariwall Barytes Shielding Bricks – Technical Details :

Compressive strength	3000 psi (21 MN/m ²)
Size	215mm x 105mm x 65mm, frogless
Density	3200 kg/m ³
Weight	4.4 kg each

The shielding values must be provided by the Specifying Authority and the lead equivalence required should be specified by the National Radiological Protection Board or the local hospital physicist.

The Institute of Physics and Engineering in Medicine* have published the following shielding data in respect of barytes concrete, density 3200 kg/m³ :

Thickness mm	Lead equivalence in mm at different tube voltages				
	50	70/75	100	150	250
25	2.3	3.3	4.1	2.3	1.7
75	-	-	-	5.9	5.8

*Report no.41 Notes on Building Materials and References on Shielding Data for Use below 300kVp.

The data given on this sheet is based on test results believed to be representative of the product and should not be interpreted as a binding specification.

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