



June 2009

EarthWool™ Sound Control Batts

Description

Knauf Insulation's EarthWool™ Sound Control Batts are made from highly resilient, inorganic glass fibres bonded by ECOSE™ Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE™ Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

Application

EarthWool™ Sound Control Batts provide a cost-effective thermal and acoustical barrier for energy-efficient construction. The batts' consistent quality, low dust and clean-cutting resilient fibres make fabrication easy and installation fast.

Light Commercial Applications

EarthWool™ Sound Control Batts are available in a range of thicknesses. EarthWool™ Sound Control Batts can improve R_w ratings in wood stud construction by 3 to 5 points and in metal stud construction by 8 to 10 points, depending on the complexity of the wall configuration and the thickness/density (cont. overleaf...)

Performance

Thermal Conductivity

ASTM C 518 and AS/NZS 4859.1: 2002

Thermal Resistance

ASTM C 653 and AS/NZS 4859.1: 2002

Technical Data

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Water Vapor Absorption (ASTM C 1104)

- Less than 5% by weight.

Corrosion Resistance (ASTM C 665)

- No greater than sterile cotton.

Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

Fire Resistance (ASTM C 136)

- Non-combustible.

EarthWool™ Sound Control Batts

...EarthWool™ Sound Control Batts can be used for exterior and interior walls, floors, crawlspaces and a variety of ceiling applications.

Specification Compliance

AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the Building Code of Australia (BCA) requirements.

Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM27 REV. 7, 1998 and shown to be biosoluble. KNS3 fibres comply with the short term biopersistence test and fulfill the requirements of Australian and international authorities on bio-solubility. EarthWool™ products are BRANZ certified.

Features and Benefits

Proven Performance

- Excellent acoustic properties reduce sound transmission when properly installed in walls, ceiling and floor systems.
- Preferred by professional installers concerned with quality, appearance and productivity.

Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

Convenient Packaging, Easier Handling

- Knauf Insulation EarthWool™ Sound Control Batts are packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- EarthWool™ packages feature easy to follow installation instructions.
- Master bag batt units (containing multiple packs) ensure reduced handling costs with improved compression – more square metres per bag, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.

Superior Service and Support

- Knauf Insulation is focused on providing first class customer service, producing high quality product and 'on time in full' deliveries.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

Knauf Insulation's EarthWool™ products with ECOSE® Technology benefit from a formaldehyde-free binder made from rapidly renewable bio-based materials instead of petroleum-based chemicals which is up to 70% less energy intensive. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. EarthWool™ products made with ECOSE® Technology contain no dye or artificial colours – the colour is completely natural.

EarthWool™ Sound Control Batts

Item Ref. No.	Thickness (mm)	Density (kg/m ³)	Dimensions (mm)	Pieces per Pack	m ² per pack
EarthWool™ Sound Control Batts - Timber Frame					
14K50430E	50	14	430X1160	38	19.0
14K50580E	50	14	580X1160	38	25.6
14K75430E	75	14	430X1160	24	12.0
14K75580E	75	14	580X1160	24	16.1
EarthWool™ Sound Control Batts - Metal Frame					
14K50450E	50	14	450X1160	38	19.8
14K50600E	50	14	600X1160	38	26.4
14K75450E	75	14	450X1160	24	12.5
14K75600E	75	14	600X1160	24	16.7

Insulation Recommendations for Internal Walls

Application	Rw + Ctr	Rw	Knauf Insulation	Wall Construction
Detached Resident Dwellings				
Internal walls to rooms not containing home theatre or sound systems	NA	38	75mm EarthWool™ Sound Control Batts	Single timber stud frame with 10-13mm plasterboard lining each side
Internal walls to rooms with home theatre or sound systems	NA	50+	75mm EarthWool™ Sound Control Batts	Double stud timber frame wall with 13-16mm plasterboard lining to each face; or Staggered stud timber frame wall with 16mm plasterboard lining to each face
Selected Walls Table 2 Deemed-to-Satisfy BCA Provisions				
BCA Compliant Acoustic Wall	-	45	50mm EarthWool™ Sound Control Batts	One row of 64mm steel studs with: (a) one layer of 16mm fire-protective grade plasterboard fixed to one face; and (b) 50mm 14kg/m ³ Knauf EarthWool™ batts positioned between the studs; and (c) two layers of fire-protective grade plasterboard fixed to other face, the inner layer being 16mm and the outer layer being 13mm
BCA Compliant Acoustic Wall	-	50	50mm EarthWool™ Sound Control Batts	One row of 92mm steel studs with: (a) 50mm 14kg/m ³ Knauf EarthWool™ batts positioned between studs; and (b) two layers of 13mm fire-protective grade plasterboard or one layer of 6mm fibre cement sheet and one layer of 13mm fire-protective grade plasterboard, fixed to each face
BCA Compliant Acoustic Wall	50	50	50mm EarthWool™ Sound Control Batts	Two rows of 90x35mm timber studs or two rows of 64mm steel studs at 600mm centres with: (a) an air gap not less than 20mm between the rows of studs; and (b) 50mm 14kg/m ³ Knauf EarthWool™ batts positioned between one row of studs; and (c) two layers of 13mm fire-protective grade plasterboard or one layer of 6mm fibre cement sheet and one layer of 13mm fire-protective grade plasterboard, fixed to outside face of studs

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