KNAUF INSULATION
it's time to save energy

October 2015

Climacoustic® HVAC Semi Rigid Board (Unfaced)

Description

Knauf Insulation's Climacoustic HVAC Semi Rigid Board is a high-density unfaced glasswool board bonded with ECOSE® Technology, a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. ECOSE Technology reduces binder embodied energy and contains no added phenol, formaldehyde, acrylics or artificial colours.

Application

Climacoustic HVAC Semi Rigid Board with ECOSE Technology is specifically designed as insulation material for heating, ventilating and air conditioning plenums and sheet metal ducts. It offers an optimum combination of efficient sound absorption and low thermal conductivity.

The insulation is less dusty and easy to cut, which makes installation fast.

Technical Data

Temperature Range (ASTM C 411)
Operating temperatures from -18°C to 230°C (unfaced).

Fire Hazard Properties (AS/NZS 1530.3)
Ignitability: 0, Spread of flame: 0, Heat Evolved: 0, Smoke Developed: 0-1.

Combustibility (AS 1530.1)
Non-combustible.

Moisture Absorption
Less than 0.2% by volume when left in an atmosphere of 50°C and 95% relative humidity for four days.

Thermal Compliance
Complies with AS/NZS 4859.1 Materials for the thermal insulation of buildings.

Corrosion Resistance (ASTM C 665)
pH 7.5-8.0: Incapable of corroding steel, aluminium or copper.

EARTHWOOL®
the feel good glasswool insulation

with ECOSE® TECHNOLOGY

Climacoustic® HVAC Semi Rigid Board

Bio-solubility
The formulation used for Earthwool insulation has been independently assessed to meet the requirements of the stringent Note Q standard (and is therefore consistent with the highest Australian and New Zealand industry standards), and also assessed by Knauf Insulation against the criteria of the Australian Safety and Compensation Council ASCC Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 3rd Edition]. As a result of this assessment, Earthwool insulation is not classified as hazardous according to the NOHSC criteria.

Features

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.

Durability
- Climacoustic HVAC Semi Rigid Board is odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Benefits

Proven Performance
- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission.

Superior Service and Support
- Knauf Insulation is totally focused on providing first class customer service, producing high quality product and 'on time in full' deliveries.
- Knauf Insulation supports 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.

Application and Specification Guidelines

Storage
- Protect material from water damage or other abuse. Pallets are not designed for outside storage.

Preparation
- Apply the product on clean, dry surfaces. Metal ducts must be sealed before application. Pre-score HVAC Semi Rigid Board where necessary to conform to curved surfaces..

Knauf Insulation's Climacoustic products with ECOSE® Technology benefit from a formaldehyde-free binder based on rapidly renewable materials instead of petro-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. Climacoustic products made with ECOSE Technology contain no dye or artificial colours – the colour is completely natural.

Specification Guide
The HVAC insulation shall be Climacoustic Semi Rigid Board *kg/m^3, *mm thick, AS/NZS 4859.1:2002 compliant. The product will be non-combustible, CFC/HCFC free, zero ODP and GWP, glasswool insulation with high post-consumer recycled glass content and with ECOSE® Technology. It will be manufactured under Quality Assurance Standards ISO 9001:2008 and ISO 14001:2004 by Knauf Insulation and shall be installed in accordance with the instructions issued by them.

*architect to insert details of products used.

Climacoustic® HVAC Semi Rigid Board

Application

General:

- All insulation joints must be firmly butted. Insulation can be secured with adhesive, mechanical fasteners or banded. Minimum compression is to be used to assure firm fit and still maintain thermal performance.
- Fasteners should be located a maximum of 75mm from each edge and spaced no greater than 450mm on centre.
- Tapes and mastics (dry) should have a UL 723 rating of 25 flame spread, 50 smoke developed.

Vessels, Tanks and Equipment:

- For outdoor application, Climacoustic HVAC Semi Rigid Board must be covered with appropriate jacketing, mastic or other vapour retarder. All exposed surfaces must be protected.
- Apply jacketing, mastics and other vapour retarders in accordance with manufacturer's instructions.

SAP Code	Density (kg/m^3)	R-Value (m^2K/W)	Thickness (mm)	Width (mm)	Length (mm)	Boards/ Pallet
450915	32	0.7	25	1200	3000	44
450913	32	1.5	50	1200	3000	22
450909	32	2.3	75	1200	3000	15
450897	32	3.0	100	1200	3000	11

Sound Absorption

Thickness	Frequency						
	125	250	500	1000	2000	4000	NRC
25	0.05	0.24	0.59	0.86	0.97	1.00	**0.65**
50	0.17	0.49	0.93	1.03	1.03	0.99	**0.85**
75	0.26	0.62	1.05	1.07	1.04	1.05	**0.95**
100	0.31	0.86	1.05	1.08	1.05	1.05	**1.00**

ASTM C 423, Type A Mounting

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