

APPLICATION

Wide range of industrial applications where **thermal insulation** is required



KNAUF INSULATION MCH ROLL with ECOSE[®]
Lightweight glass mineral wool rolls for thermal insulation of industrial applications

DESCRIPTION

KNAUF INSULATION MCH ROLL are rolls made of **glass mineral wool**. Due to their high thermal insulation and unique ECOSE[®] Technology (formaldehyde-free binder technology) these rolls are used as thermal insulation in various systems, particularly where light weight and manual assembling of the system is required.

Additionally, rolls can be faced on one or both sides with black or neutral glass fleece, black glass tissue or aluminium foil.

The dimensions of each roll are customized according to the dimensions of each application. Smaller dimensions are also available as boards.

FEATURES

- Non-combustibility (Euroclass A1)
- Optimal thermal conductivity
- Superior handling (softer feel, odourless, dust-free, no skin irritants)
- Excellent sound absorption
- Mechanical stability throughout its lifetime
- Hydrophobic properties help to resist external/outdoor influences (condensation)
- Our production technology enables custom made sizes and dimensions



HEALTH AND ENVIRONMENTAL PROTECTION

The incorporation of insulation material from mineral wool makes it possible to build healthy and comfortable living spaces as its properties improve the microclimate in a room and, at the same time ensure excellent thermal, sound and fire protection. Products are tested according to Directives 97/69/EC, for which they were granted the »Test Certificate of Bio-solubility«, demonstrating their health safety. Knauf Insulation products are also ecologically oriented, as they reduce the consumption of thermal energy sources, thereby reducing environmental pollution. It is also of great importance that the production procedure of mineral wool is carried out in a closed circuit, i.e. production process waste is recycled in briquette manufacturing and then returned back to the production line.

As part of our policy of continuous product development, we reserve the right to revise specifications without notice. The information given in the brochure is correct to the best of our knowledge. It provides general information only and users should verify whether the products described are suitable for their specific requirements.



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Insulation in Machine Production

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MAIN PROPERTIES

- **THERMAL INSULATION PROPERTIES;** excellent thermal conductivity values
- **NON-COMBUSTIBILITY –** highest possible Euroclass A1 fire classification according to European standards (melting point above 1,000°C)
- **SUPERB ACOUSTIC PERFORMANCE;** due to the open fibrous structure rock mineral wool has the ability to absorb and reduce high levels of sound
- **ENERGY SAVING MATERIAL;** for reduced energy bills and CO₂ emissions
- **VAPOUR PERMEABILITY;** because of its fibrous structure, rock mineral wool is permeable to vapour
- **WATER REPELLENCE;** its fibres are permanently water-repellent
- **HIGHLY SUSTAINABLE;** non-hazardous to personal health and the environment. Rock mineral wool is free from CFCs, HCFCs and any other material with ozone depletion potential in their manufacture and content and represents no known threat to the environment
- **PERMANENTLY STABLE DIMENSIONS;** products do not change in length or width with fluctuations in humidity or temperature
- **RESISTANCE TO MICRO-ORGANISMS;** rock mineral wool is non-hygroscopic, rot proof, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria

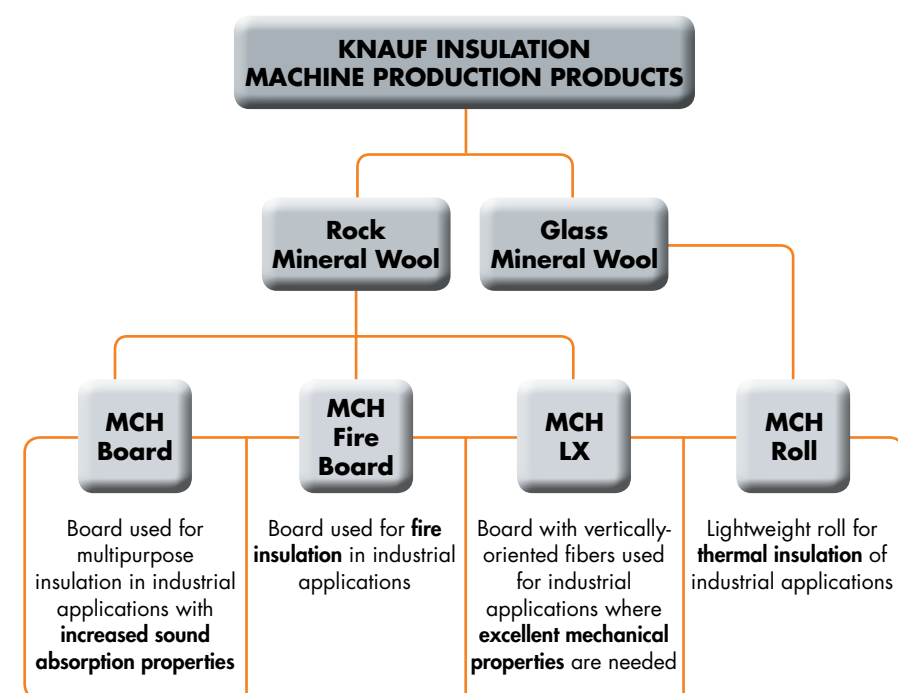


The machine manufacturing industry supplies the means of production for all segments of the global economy. It's a very wide and diverse sector which includes metalworking, electrical appliances and mechanical engineering; which in turn includes machine tools, heating and air conditioning devices, paper and printing machinery, construction machinery, textile and other manufacturing machinery.

A wide range of industrial appliances contain mineral wool insulation produced by Knauf Insulation, which is used to increase their performance (thermal insulation / fire protection) and to reduce their impact on both operators and the environment (sound and heat protection).

We provide customized insulation solutions for:

- Insulation of industrial applications requiring **thermal and sound insulation/absorption** (such as air-conditioning silencers, machine housings, boilers, heat pumps etc.)
- Insulation of industrial applications requiring **high temperature and fire resistance** (such as drying systems, industrial ovens etc.)



KNAUF INSULATION MCH BOARD (GVB, GVN, GW) Boards for multipurpose insulation in industrial applications with increased sound absorption properties

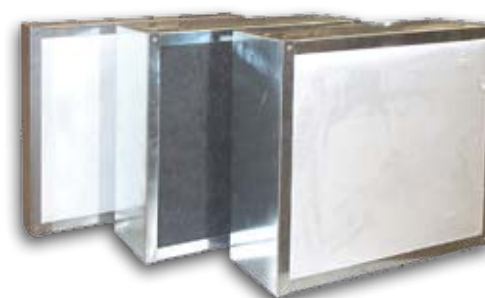
DESCRIPTION

KNAUF INSULATION MCH BOARD (MCH B) is board made of **rock mineral wool**. Due to its thermal and acoustic properties it's built into a wide range of machinery. With its thermal characteristics Knauf Insulation MCH B is used to increase the efficiency of the device and at the same time reduce noise caused by the operation of the machine. It can be used at continuous operating temperatures up to 250°C.

The dimensions of each board are customized according to the dimensions of each application.

Knauf Insulation MCH Boards of lower densities

These MCH Boards are designed for sound absorption applications such as a silencer at the end of ventilation channels. These boards are usually faced with black or neutral glass fleece or black glass tissue (also available as plain) on one or both sides.



- **Black glass fleece facing (MCH B GVB)** protects rock mineral wool boards from degradation caused by air-flow. With its black colour it is also visually neutral in perforated metal sheeting.
- **White glass fleece facing (MCH B GVN)** Similar to black glass fleece boards can be faced with white glass fleece.
- **Black glass tissue facing (MCH B GW)** protects rock mineral wool board from degradation caused by air-flow and is specially designed for applications where higher hygiene standards are required. With its black colour it is also visually neutral in perforated metal sheeting.

Knauf Insulation MCH Boards of higher densities

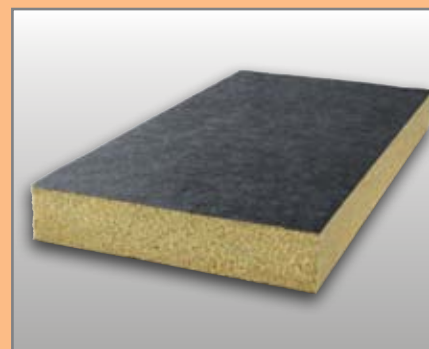
These MCH boards are designed for installation as a core element in machinery housings. The boards are usually produced with narrow tolerances and smooth surface in order to provide optimal adhesiveness with metal sheeting. MCH Boards have very good mechanical properties and at the same time provide very good thermal insulation.

FEATURES

- Non-combustibility (Euroclass A1)
- Good sound absorption
- Good sound insulation
- Optimal thermal conductivity
- Mechanical stability throughout its lifetime
- Hydrophobic properties help resist external/outdoor influences (condensation)
- Our production technology enables custom-made sizes and dimensions

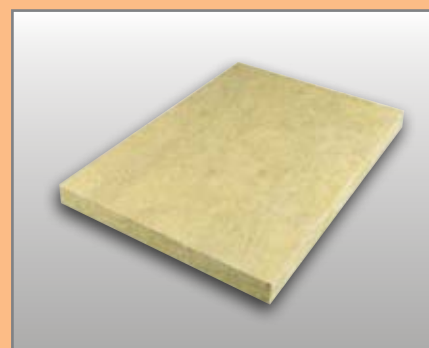
APPLICATION – MCH BOARDS OF LOWER DENSITIES:

Due to its acoustic properties (sound absorption) these boards are **used as the core sound absorption element in silencers** at the end of ventilation channels.



APPLICATION – MCH BOARDS OF HIGHER DENSITIES:

Due to its acoustic properties (sound absorption and sound insulation) these boards are **used as integral components in various machine devices generating noise**; and due to thermal insulation properties, the boards are also **used to reduce energy losses**.



KNAUF INSULATION MCH FIRE BOARD Boards for fire insulation in industrial applications

DESCRIPTION

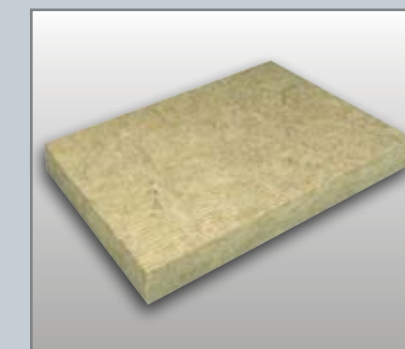
KNAUF INSULATION MCH FIRE BOARD (MCH FB) is board made of **rock mineral wool**, whose main purpose is to provide fire and thermal protection of various industrial applications. The mineral fibres are bound with a minimum content of binder, ensuring board operating at high temperatures, and can be used at continuous temperatures exceeding the standard (even above 250°C). The dimensions of each board are customized according to the dimensions of each application.

FEATURES

- Excellent fire protection
- Preservation at high temperatures
- Fire resistant – melting point above 1,000°C
- Non-combustibility (Euroclass A1)
- Good sound absorption
- Good sound insulation
- Optimal thermal conductivity
- Mechanical stability throughout its lifetime
- Hydrophobic properties help resist external/outdoor influences (condensation)
- Our production technology enables custom-made dimensions

APPLICATION

Owing to its fire protection properties boards are used for industrial machinery where **operating temperatures may exceed standard operating temperatures**



KNAUF INSULATION MCH LX Boards with vertically-oriented fibers for industrial applications where excellent mechanical properties are required

DESCRIPTION

KNAUF INSULATION MCH LX is board made of **rock mineral wool**. Due to its superb mechanical properties it's used as a core element in different systems where excellent mechanical properties are required. With its quality thermal properties Knauf Insulation MCH LX is used to increase the device efficiency and at the same time reduce noise produced by machine. It can be used at continuous operating temperatures of up to 250°C. The dimensions of each board are customized according to the dimensions of each application.

FEATURES

- Non-combustibility (Euroclass A1)
- High mechanical properties
- Excellent sound absorption
- Excellent sound insulation
- Optimal thermal conductivity
- Mechanical stability throughout its lifetime
- Hydrophobic properties help resist external / outdoor influences (condensation)
- Our production technology enables custom-made sizes and dimensions

APPLICATION

Due to its excellent mechanical properties MCH LX is used in products/systems where **constant mechanical loads** are present

