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 safely. 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.

KNAUF INSULATION MCH ROLL
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 on 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 also are available as boards.

FEATURES

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

APPLICATION

Wide range of industrial applications where thermal insulation is required

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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, tools and other manufacturing machinery.

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

KNAUF INSULATION MCH BOARD (MCH B) is a board made of rock mineral wool, which is used to increase the performance of machinery and as a sound absorption element in silencers at the end of ventilation channels.

**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.

**FEATURES**

- Non-combustibility (Euroclass A1)
- Good sound absorption
- Good sound insulation
- Optimal thermal conductivity
- Excellent fire protection
- Mechanical stability throughout its lifetime
- Low thermal transmittance (U-value)
- Our production technology enables custom-made dimensions

**APPLICATION – MCH BOARDS OF HIGHER DENSITIES**

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

**FEATURES**

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

**KNAUF INSULATION MCH FIRE BOARD**

**DESCRIPTION**

KNAUF INSULATION MCH FIRE BOARD (MCH F) is a board made of rock mineral wool, which main purpose is to provide the fire thermal protection of machinery. Due to its excellent mechanical properties boards are used as a core sound absorption element in silencers at the end of ventilation channels.

**FEATURES**

- Non-combustibility (Euroclass A1)
- High mechanical properties
- Excellent sound absorption
- Excellent sound insulation
- Excellent fire protection
- Optimal thermal conductivity
- Mechanical stability throughout its lifetime
- Low thermal transmittance (U-value)
- 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 F is used in products/systems where constant mechanical loads are present.

**KNAUF INSULATION MCH LX**

**DESCRIPTION**

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

**APPLICATION**

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

**KNAUF INSULATION MCH PRODUCTION PRODUCTS**

- boards for multipurpose insulation in industrial applications with increased sound absorption properties
- boards for industrial applications requiring high temperature resistance and fire protection
- boards for multipurpose insulation in industrial applications
- boards used as the core sound absorption element in silencers at the end of ventilation channels
- boards with vertically-oriented fibers for industrial applications
- lightweight Mullite for industrial applications

**APPLICATION**

Due to its fire protective properties MCH LX boards are used, for industrial machinery where operating temperatures exceed standardized operating temperatures.

**MAIN PROPERTIES**

- **THERMAL INSULATION PROPERTIES:** excellent thermal conductivity
- **NON-COMBUSTIBILITY:** - higher than Euroclass A1 fire classification according to European standards (melting point above 1,000°C)
- **SUPER ACOUSTIC PERFORMANCE:** due to the open fibrous structure rock mineral wool has the ability to absorb and reduce high pitch sound
- **ENERGY SAVING MATERIAL:** for reduced energy bills and CO₂ emissions
- **VAPOUR PERMEABILITY:** due to fiber nature, rock mineral wool is permeable to vapors
- **WATER REPELLENCE:** doors are permanently water repellent
- **HIGH SUSTAINABLE: non-hazardous to personal health and the environment. Rock mineral wool is free from CFC, HCFC and any other material with ozone depletion potential in their manufacture and current and represents a better threat to the environment.
- **PERMANENTLY STABLE DIMENSIONS:** products do not change in height to width ratio due to constant humidity in humidity or temperature.
- **RESISTANCE TO MOISTURE:** rock mineral wool is hygroscopic, or, put simply, retains moisture and will not encourage the growth of fungi, mold or bacteria.

We provide customized insulation solutions for:

- Insulation of industrial applications requiring thermal and sound insulation/absorption (such as air-conditioning, machine housings, boilers, heat pumps etc.)
- Insulation of industrial applications requiring high temperature and fire resistance (such as drying systems, industrial ovens etc.)
- Insulation in industrial machinery requiring fire protection (such as paper and printing machinery, construction machinery, textile and other 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, tools and other manufacturing machinery.

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

Knauf Insulation MCH Boards of lower densities

These MCH Boards are designed for sound absorption applications such as a silencer or at the end of ventilation channels. These boards are made of glass fibre or black glass fibre (also available in white) on one or both sides.

- **Black glass fibre facing (MCH B GVB)** protects rock mineral wool boards from degradation caused by fire. With its black colour it is also visually suitable in perforated metal sheeting.
- **White glass fibre facing (MCH B GW)** protects rock mineral wool boards from degradation caused by fire and is especially designed for applications where higher hygiene standards are required. With its black colour it is also visually suitable in perforated metal sheeting.

Knauf Insulation MCH Boards of higher densities

These MCH Boards are designed for insulation as a core element in machinery housings. The boards are usually produced with narrow tolerances and smooth surfaces for use in silencers and other cases. Despite their excellent fire protection, the boards are also used to reduce energy losses.