

# INSTALLATION GUIDE MEDITERRI™ HEMP WOOL

Version: MARCH 2023

### 1. Definition and Description - What is Hemp Fleece?

Mediterri<sup>™</sup> insulation wool is made from 100 % hemp fibers. It is a heat-insulating, vapor-permeable, and sound-insulating building material. The hemp insulation wool can be used to fill joints and cavities in old and new buildings on all levels. Mediterri<sup>™</sup> insulation wool is non-settlement and stable under UV rays. It can also be used as upholstery, animal bedding, and as a heat/cold protection layer in the case of large temperature differences.

#### Material

Hemp is a one-year renewable raw material, which has a good ecological balance due to its permeable natural fiber. The hemp darning wool consists of dissolved hemp fibers. The purely natural product is not certified and is therefore not subject to regular quality tests. The darning wool does not contain any finishes, solvents, insect repellents, or fire retardants, which means that its use enables ecological, health-conscious construction. Storage open to diffusion is recommended.

#### 2. Characteristics and dimensions

The insulating wool is delivered in pressed bales of approx. 250 kg (density approx. 150 kg/m3). Or in plastic bags in a loose form of 17,5 kg (density 50 kg/m3).

#### **Bale weights vary**

Please note that bale weights vary due to production. So not every bale weighs exactly 250 kg.

The weight of most bales varies between 250 and 300 kg. The costs are always calculated according to the actual weight and not according to the number of bales.



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#### 3. Installation recommendations

When installed, the insulation wool should have a density of approx. 50 kg/m3. Before bringing in the hemp wool from the bale (with a density of approx. 150 kg/m3) must be loosened.

To ensure that the desired density of 50 kg/m3 is approximately achieved, a tamping test should be carried out beforehand. For a hollow space with known dimensions (e.g. a cardboard box), one calculates the corresponding amount of hemp fiber and then fills the hollow space evenly with it. This results in the correct degree of compaction as an empirical value.

Small variances are irrelevant. It is important that the packing density is certainly greater than 40 kg / m3 everywhere (fire protection!).

The hemp fiber insulating wool is particularly suitable for the lateral filling of large open cavities (such as stud frames with planking on one side). The insulating wool can be easily inserted here without falling out again.

Hemp insulation wool is clamped into prepared insulation areas without the need for cutting. Remove foil and binding wire, and bring the material from the hemp insulation bale directly into the cavity. Pull mated units apart.

If you then continue to work with a panel material or a plaster base panel, the economy formwork is first installed in the clear dimensions specified by the panel manufacturer. Usually 25 or 30 cm.

The hemp insulation wool s brought into the cavity between the economy formwork without any force. The room must be visually well-filled. The visual check is sufficient. The pre-compaction in the hemp insulation wool bale is selected in such a way that the minimum filling density is always guaranteed after the bales separate, otherwise, holes will be immediately recognizable. If the cavity is visually well-filled, the required density has been achieved. If you work without force, the required density is maintained. In the case of rough bungs or visible panels, the hemp insulation is installed at the same time as the wood is installed. Always work an arm's length ahead.

#### For roof insulation with closing material or gypsum boards, we recommend:

First mount economy formwork (auxiliary battens) on the rafters in standard board dimensions. Then insert the hemp insulating wool between the rafters and the formwork. Otherwise, the hemp insulation wool is simply stretched between the construction or filled into the cavity.

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## To check when filling the hemp insulation wool:

If the filling density is too low, the compartment looks empty. It is therefore immediately recognizable whether there is too little material in the compartment. There is hardly any danger of too high a density. Insulation thicknesses up to 18 cm are filled with 50 kg/m<sup>3</sup>; large insulation thicknesses up to 30 cm with 60 kg/m<sup>3</sup>. For example, for 70 kg/m<sup>3</sup>, you would need a lot of power; anyway, the hemp insulation wool springs back, i.e. swells out of the

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compartment again, so that the filling density is reduced as if by itself. The physical properties of the building hardly change if the filling density is too high. It should be stuffed without exertion - the compartment should be visually well-filled.

#### Consumption of hemp insulation wool:

Filling density: processing density of 50-60 kg/m<sup>3</sup>

With insulation thicknesses from 20 cm between 55 - 60 kg/m<sup>3</sup>

### The following area can be insulated with a 1 m3 of hemp-insulating wool weighing 50 kg:

Thickness	10 cm	12 cm	14 cm	16 cm	18 cm	20 cm
1m3(50kg) for	6 m2	5 m2	4.3 m2	3.7 m2	3.2 m2	2.7 m2