fonotech

ACOUSTIC INSULATION IN ROLLS FOR THE REDUCTION OF IMPACT NOISE

IMPACT NOISE REDUCTION

FOR FLOORING SYSTEMS

ACOUSTIC INSULATION IN ROLLS

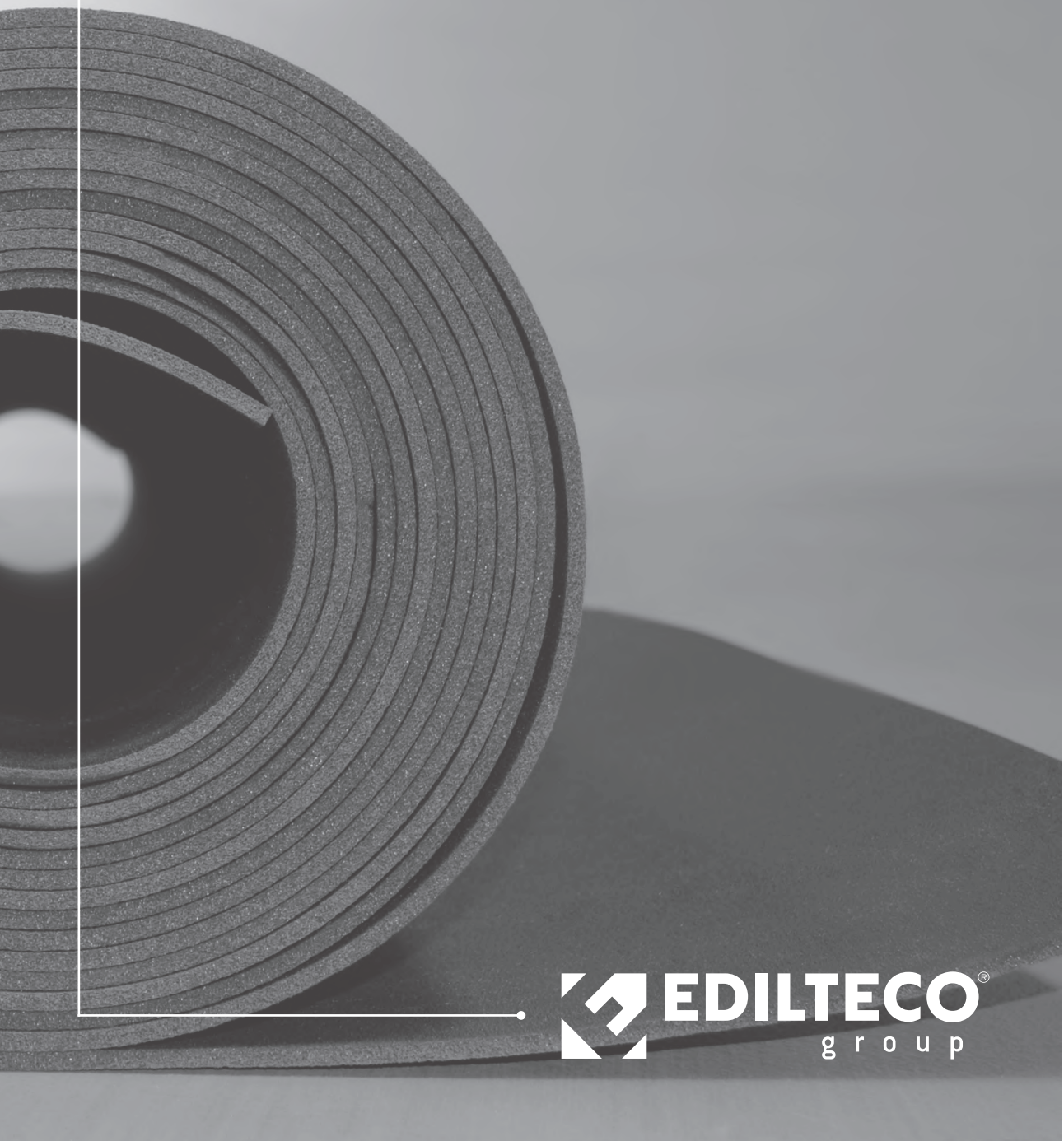
RECYCLABLE MATERIAL

VOC A+ EMISSIONS

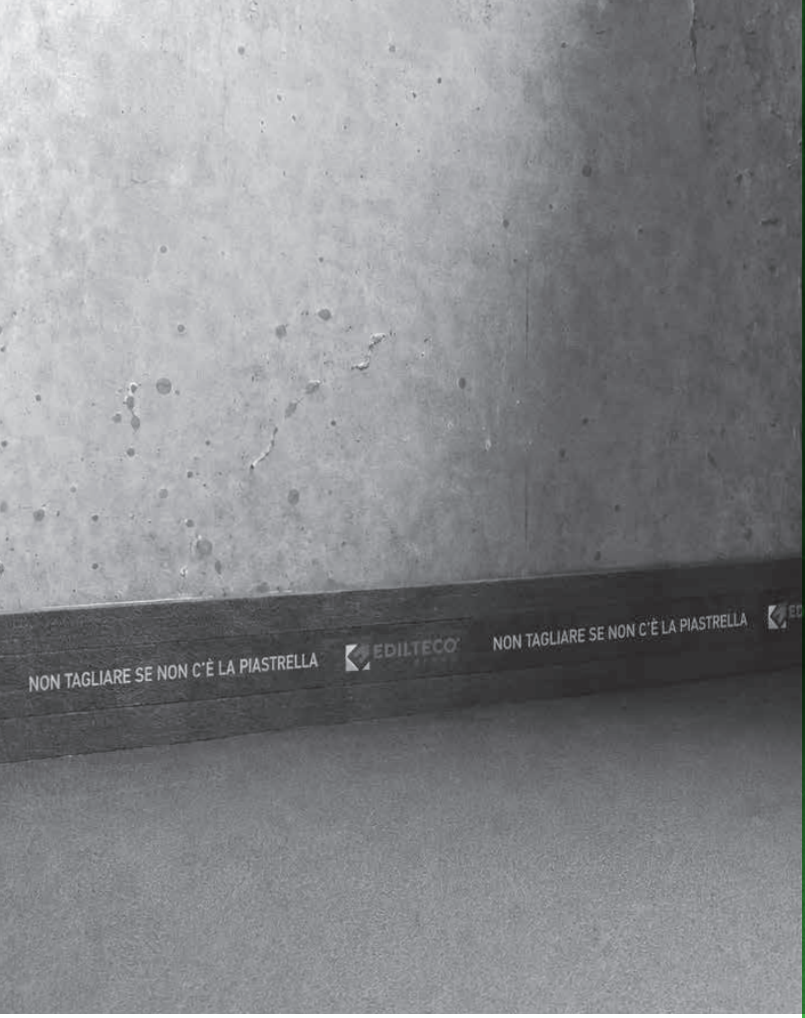
DBRED

THE + OF DBRED FONOTECH

- Impact sound insulation
- Stability under load
- Technical rubber compound
- 60% recycled LDPE



EDILTECO® group



INSTALLATION MAKES THE SYSTEM WORK

In a floating floor system, it is not only the product that matters: the continuity of the resilient layer, separation from lateral structures and attention to installation details are essential.

WHERE IT IS USED

DBRED FONOTECH and DBRED FONOTECH PLUS are suitable for the acoustic insulation of brick-concrete or reinforced concrete floors using the floating floor system. They are suitable for **new buildings and renovation works**, also in the presence of **radiant heating systems**, contributing to the overall thermal-acoustic behaviour of the build-up.

The choice between DBRED FONOTECH and DBRED FONOTECH PLUS depends on design requirements, the available thickness and the required level of acoustic comfort.

The floor system

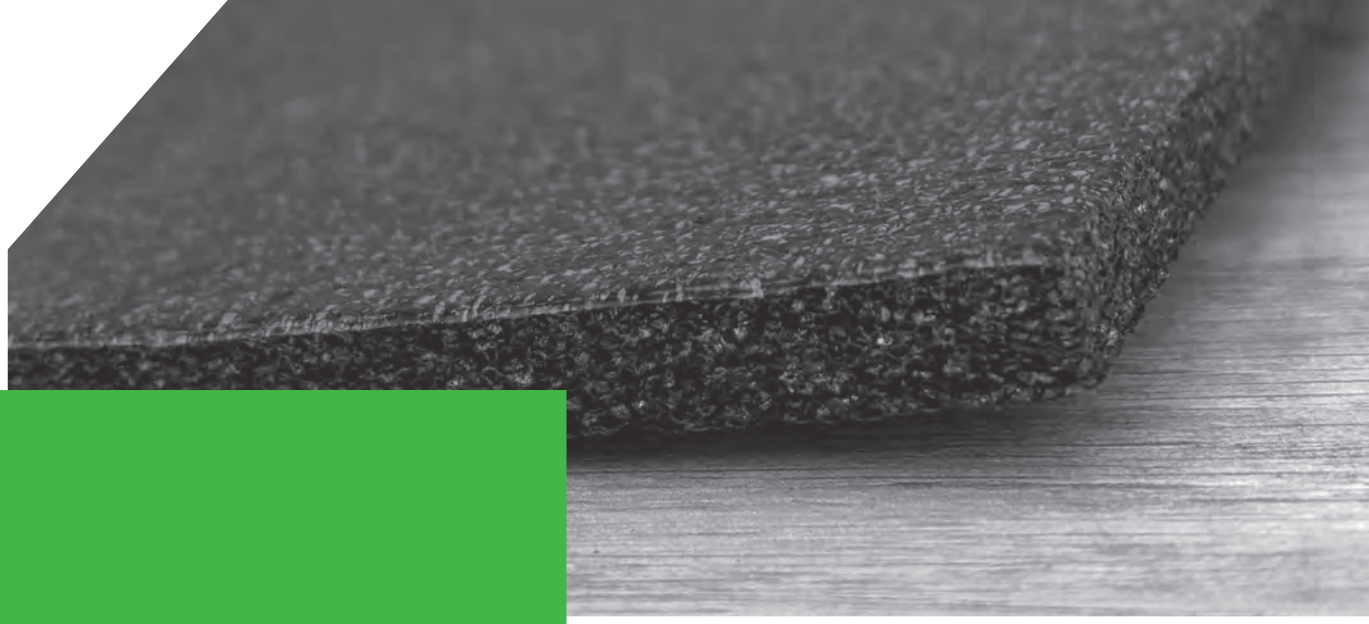
The correct installation turns acoustic insulation into real performance, enhancing the floor system in every detail.

CONTINUITY
Resilient layer without interruptions between floor slab and screed.

PERIMETER
Lateral strips to prevent rigid contact with walls and thresholds.

ACCESSORIES
DBRED LF5 strips and DBRED P-STICK tapes to ensure continuity and installation details.

DURABILITY
Technical rubber compound to withstand repeated loads.



DBRED FONOTECH

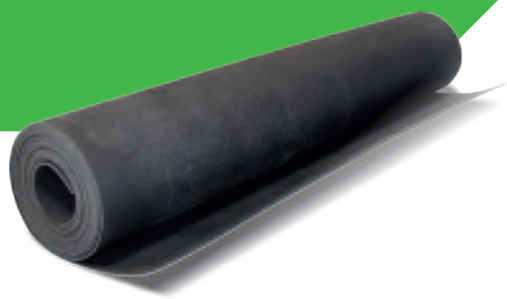
DBRED FONOTECH is the acoustic insulation in rolls from the DBRED range, designed to reduce the impact noise transmission in floating floor systems. Its function is to create a **continuous resilient layer between floor slab and screed**, capable of contributing to the decoupling of the floor build-up and to the improvement of acoustic comfort in indoor environments.

The product technology combines a **recycled LDPE matrix with a technical rubber compound**, to provide elasticity, dimensional stability and resistance to repeated loads.

COMPLETELY RECYCLABLE

Acoustic insulation can no longer be considered only through a decibel value. The acoustic insulation must work within the floor system, under load and for many years.

DBRED FONOTECH combines performance, durability, technical rubber compound and total recyclability.



Dual value

Acoustic performance and environmental responsibility become part of the same technical choice.

WHY IT IS A DIFFERENT CHOICE

It is not a simple resilient layer. It is a solution designed to be integrated into a real build-up, improve acoustic comfort and maintain its function over time.

The elastomeric compound integrated into the thermoplastic matrix improves **elasticity** and **resistance** to repeated loads.

STABILITY UNDER LOAD

The composition with elastomeric compound helps to improve the mechanical memory of the material and its response to **compression cycles**. The uniform cellular microstructure promotes a more even distribution of stress, helping the acoustic insulation maintain **dimensional stability and resilient function over time**.

INTEGRATED SUSTAINABILITY

DBRED FONOTECH is designed to combine **acoustic comfort and environmental awareness within the same technical solution**. The product composition meets today's construction requirements, where performance, durability and environmental responsibility must work together:

· made with 60% recycled LDPE;
· completely recyclable.

A solution designed for higher-performing, more conscious floor systems, consistent with the criteria of contemporary design.

THE VALUE IS IN THE STRUCTURE

DBRED FONOTECH combines a closed-cell structure with a uniform microstructure, designed to promote a more even distribution of stress within the floor system. The elastomeric compound integrated into the polymer matrix helps improve the response to **compression cycles and heavy loads**, helping the acoustic insulation maintain **elasticity**, **dimensional stability and resilient function over time**.

60%
recycled LDPE

30 kg/m³
density

0.038 W/(m·K)
conductivity

μ 5.000
vapour resistance

FUNCTIONAL CHARACTERISTICS

DBRED FONOTECH contributes to the behaviour of the build-up through elasticity, damping capacity and dimensional stability over time.

The **closed-cell structure**, resistance to chemical and biological agents and the value μ = 5.000 support the durability of the system and the control of vapour diffusion.

Air quality and safety

The A+ classification for VOC emissions confirms the focus on indoor air quality.
The reaction to fire class is B_{fl}-s1.

IMPACT SOUND REDUCTION AND DYNAMIC STIFFNESS

Thickness	ΔL_w	Dynamic stiffness
3 mm	21 dB	58 MN/m³
4 mm	22 dB	53 MN/m³
5 mm	24 dB	48 MN/m³
10 mm	28 dB	41 MN/m³

PROPERTIES

Closed cells, excellent dimensional stability, resistance to ageing and to chemical and biological agents.

SPECIFICATION TEXT DBRED FONOTECH

Supply of **resilient mat in rolls for impact sound insulation**, **type DBRED FONOTECH by Edilteco**, suitable for use within floating floor systems.

The material shall consist of a **new-generation closed-cell expanded polyethylene matrix**, integrated with a **technical rubber compound**, designed to ensure high elasticity, resistance to repeated loads and mechanical stability over time.

The presence of the elastomeric compound within the thermoplastic matrix shall allow the acoustic performance to be maintained even in the presence of prolonged static and cyclic loads, improving fatigue resistance and system durability.

The material shall have the following indicative technical characteristics:

- density of approximately **30 kg/m³**;
- **closed-cell** structure;
- thermal conductivity λ ≈ **0.038 W/(m·K)**;
- vapour diffusion resistance **μ = 5.000**;
- dynamic stiffness between **41 and 58 MN/m³** according to thickness (EN 29052-1 / EN 29053);
- impact sound reduction **ΔL_w up to 28 dB** (ISO 10140-3);
- high dimensional stability;
- excellent resistance to ageing;
- excellent resistance to chemical and biological agents.

The material shall be designed to ensure long-term performance durability and maintenance of its elastic characteristics even in the presence of repeated compression cycles. The mat shall be made with **LDPE containing recycled material** and shall be **completely recyclable (100%)**, representing a solution consistent with modern environmental sustainability criteria. It shall also be free from CFC/Freon.

The product shall have:

- reaction to fire class **B_{fl}-s1** according to EN 13501-1;
- VOC emissions **Class A+** according to ISO 16000 and Arrêté du 19 avril 2011.



DBRED FONOTECH PLUS

DBRED FONOTECH PLUS is the coupled acoustic insulation in rolls from the DBRED range, designed for applications requiring **superior performance in the reduction of impact noise**. The **double-layer structure** combines a core in expanded polyethylene with closed-cell rubber compound and a layer of **needle-punched polyester fibre**, designed to enhance vibration absorption within the floating floor system.

An **effective, durable and reliable** solution, capable of contributing to the acoustic comfort of living spaces and to the maintenance of performance over time.

RESPONSIBLE MATERIAL

Acoustic performance does not only concern the declared value, but also the material's ability to integrate into the build-up and respond to the requirements of the floor system.

DBRED FONOTECH PLUS combines high acoustic performance, coupled structure, recycled content and total recyclability.



Double layer

Elastic layer and polyester fibre work together to improve acoustic comfort within the floor system.

WHY PLUS

It is not just a coupled version. It is a solution designed to provide an additional contribution to impact sound insulation, thanks to the combination of an elastic layer and needle-punched polyester fibre.

The double structure makes it possible to act both on the **resilience of the material** and on the **absorption of vibrations**, improving the overall behaviour of the floor system.

TWO LAYERS, ONE PERFORMANCE

The presence of the closed-cell rubber compound helps maintain **elasticity**, **resistance and stability over time**. The needle-punched **polyester fibre** layer completes the system, offering additional support in reducing vibrations and improving acoustic comfort in indoor environments.

ENVIRONMENTAL VALUE

DBRED FONOTECH PLUS is designed to combine **acoustic performance**, **durability and environmental awareness within the same technical solution**. The product composition meets today's construction requirements, where system effectiveness and environmental responsibility must work together:

· total recycled content equal to 37.2%;
· recycled content in the polyester layer equal to 62%;
· 100% recyclable.

A solution designed for high-performance floor systems, consistent with the criteria of contemporary design.

THE VALUE IS IN THE PERFORMANCE

DBRED FONOTECH PLUS is designed to provide a superior acoustic contribution within the floating floor system. The combination of **elastic layer and polyester fibre** makes it possible to achieve impact sound reduction values of up to 33 dB, with dynamic stiffness between 11 and 12 MN/m^3. The different versions available make it possible to choose the **most suitable thickness for the build-up**, while maintaining dimensional stability and recyclability.

32-33 dB
impact sound reduction ΔL_w

11-12 MN/m^3
dynamic stiffness

7-14 mm
total thickness

100%
recyclable

FUNCTIONAL CHARACTERISTICS

Available in different thicknesses, DBRED FONOTECH PLUS allows the product choice to be adapted to the requirements of the build-up. Thermal conductivity 0.036 W/(m·K), vapour diffusion resistance μ = 5.000 and **excellent dimensional stability** complete the performance profile. These are complemented by reaction to fire class B_{fl}-s1 according to EN 13501-1 and compressibility class CP2 according to EN ISO 29770:2022.

Plus versions



The range makes it possible to choose the most suitable thickness for the requirements of the build-up, while maintaining high acoustic values and performance continuity.

IMPACT SOUND REDUCTION AND DYNAMIC STIFFNESS

Thickness	ΔL_w	Dynamic stiffness
7 mm	32 dB	12 MN/m^3
8 mm	32 dB	12 MN/m^3
9 mm	33 dB	11 MN/m^3
14 mm	32 dB	12 MN/m^3

ΔL_w values obtained using a standard concrete screed with a thickness of 6 cm.

PROPERTIES

Excellent dimensional stability, resistance to ageing, μ 5.000 and 100% recyclability.

SPECIFICATION TEXT DBRED FONOTECH PLUS

Supply of **resilient mat for impact sound insulation**, **in rolls**, **type DBRED FONOTECH PLUS by Edilteco**, suitable for use within floating floor systems.

The material shall consist of a **coupled double-layer structure**, composed of:

- elastic layer in **new-generation expanded polyethylene**, additivated with **closed-cell rubber compound**, in order to ensure high elasticity, resistance to compression cycles and stability over time;
- upper layer in **needle-punched polyester fibre with calibrated density**, suitable for improving vibration absorption and impact sound reduction.

The material shall ensure the following indicative performance characteristics:

- **dynamic stiffness ≤ 12 MN/m^3** (EN 29052-1);
- **impact sound reduction ΔL_w equal to 32-33 dB depending on thickness** (EN ISO 12354-2);
- **vapour diffusion resistance μ = 5.000**;
- **thermal conductivity λ equal to approximately 0.036 W/(m·K)**;
- reaction to fire class **B_{fl}-s1** according to EN 13501-1;
- compressibility class **CP2** according to EN ISO 29770:2022;
- high dimensional stability;
- excellent resistance to ageing.

The material shall be designed to ensure the maintenance of acoustic and mechanical performance over time, even in the presence of static and cyclic loads, thanks to the elastomeric structure and stable microstructure of the material.

The mat shall be **completely recyclable (100%) in all the layers that compose it**, including the couplings with polyester, and shall contain a significant proportion of recycled material, with particular reference to the polyester fibre layer.

The material shall be free from CFC/Freon or substances harmful to the environment.



CONTINUITY IS COMPLETED IN THE DETAILS

Perimeters, joints and connections are the sensitive points of the build-up: this is where acoustic bridges can be created, reducing the performance of the insulation. For this reason, dedicated accessories are required, capable of maintaining the continuity of the resilient layer and eliminating rigid contacts between screed and structures.

CONNECTION ACCESSORIES

DBRED LF5 strips and DBRED P-STICK tapes are installation accessories designed to complete the floating floor system, ensuring correct detailing at junctions, perimeters and continuity of the resilient layer.

DBRED LF5 PERIMETER STRIPS

DBRED LF5 strips are not simple perimeter strips: they are "L"-shaped adhesive accessories designed to **complete the connection between acoustic insulation, screed and vertical structures**. The hot scoring makes bending easier and helps achieve neat, continuous installation along the entire perimeter, even around pillars and corners.

The distinctive feature is the **reduced-thickness horizontal wing (approximately 2 mm)**: the part that overlaps the floor insulation is much thinner than the strip itself. This simplifies installation and **drastically reduces the typical "step" of traditional perimeter strips**, avoiding localised extra thickness along the perimeter and promoting a screed with uniform thickness up to the edge.

The warning "DO NOT CUT UNLESS THE TILE IS IN PLACE" is screen-printed on the vertical part: a permanent reminder on site, because cutting the strip too early is one of the most frequent causes of acoustic bridges. The strip must be cut only once the finished flooring has been laid.

Available in 10+5 and 15+5 sizes, with a thickness of 5 mm, they can be adapted to different system configurations and floor build-up requirements.

DBRED P-STICK TAPES

DBRED P-STICK tapes complete the installation by ensuring continuity of the resilient layer at the joints between sheets. They are made of the same material as the acoustic insulation: the joint therefore works homogeneously with the rest of the surface, without discontinuity in behaviour.

The **reduced thickness (approximately 2 mm)** avoids extra thickness at overlaps, while the **high-bond adhesive keeps the tape in position during screed pouring**. A practical aid for the installer, useful for completing the acoustic insulation system properly.

Beyond the perimeter



Walls, thresholds, pillars and critical points require a dedicated detail to avoid rigid contact with the screed. The reduced wing of the DBRED LF5 strips and the reduced thickness of the DBRED P-STICK tapes keep the build-up flat and continuous, without steps or extra thickness.



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