



Processing Methods

Processing Methods of DeFelt's PET Felt

260205

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Straight and diagonal cutting allows panels to form clean angles and folds, enabling three-dimensional structures while keeping the surface neat and stable.



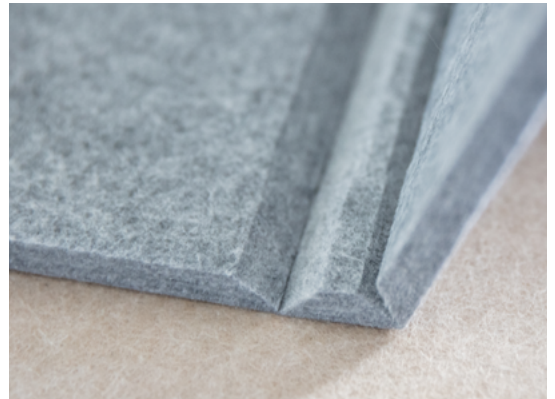
Digital Cutting

ZUND is a high-precision digital cutting system that delivers clean, accurate cuts of straight lines and curves. It supports V-cutting at various angles, including 0°, 15°, 22.5°, 30°, and 45°. The process is extremely fast, customisable, and odourless and allows scoring, shaping, and cutting complex patterns with clean, accurate results.



V-Cut Folding

Cutting V-shaped grooves into the material makes it easier to bend along the cuts. This process allows the felt to be folded into precise shapes and angles. Its flexibility and durability make it suitable for various design applications, and it retains its shape after folding.



Manual Cutting

When cutting the PET Felt manually we recommend using a sharp knife combined with a ruler for the best possible result. A utility knife or precision knife will be sufficient. Cut the PET Felt step by step and follow the same cutting path several times for a better result.



Perpendicular cutting ensures clean edges and precise shapes in felt panels. It supports accurate detailing for both functional and aesthetic purposes, whether done by machine or hand.



Laser Cutting

Laser cutting offers high precision and allows for fine details and small curve radii. It also enables surface engraving. During the process, the laser beam may slightly burn the material, hardening the edges and causing minor discoloration, particularly on light-colored felts. The method is fast, suitable for personalisation, and leaves a characteristic scent.



Laser Marking

Delicate, shallow incisions in felt in the form of a single line. It allows for precise markings such as outlines, text, or linear patterns, with minimal impact on the surface. This technique is suitable for subtle graphics, decoration, or technical marking.



Laser Surface Engraving

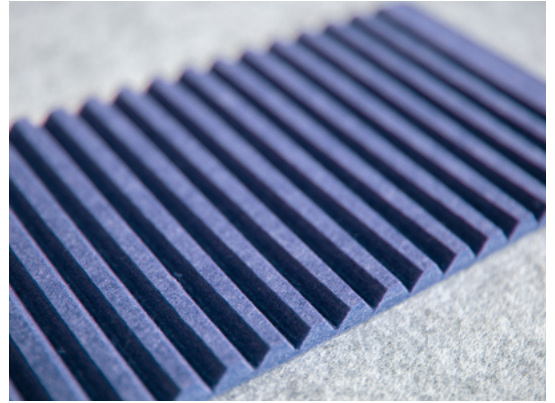
Allows the creation of larger graphic areas on felt by gently burning the surface. The process slightly removes the top layer, resulting in filled shapes or patterns with visible color change, especially on light-colored materials. It is ideal for logos, textures, or decorative graphics.



Cutting allows the transformation of a flat felt panel into flexible, adaptable forms. By changing its geometry, it enables folds, curves, and custom shapes in functional and creative applications.

CNC V-Groove Cutting

The digital cutting process enables the creation of V-grooves, which act as hinges in the material, allowing it to be folded seamlessly into angles or shapes. To preserve the strength of the material and the integrity of the hinge, a maximum cutting depth must be maintained. For example, PET felt can be folded cleanly at a 45° angle with a cutting depth of 7 mm.



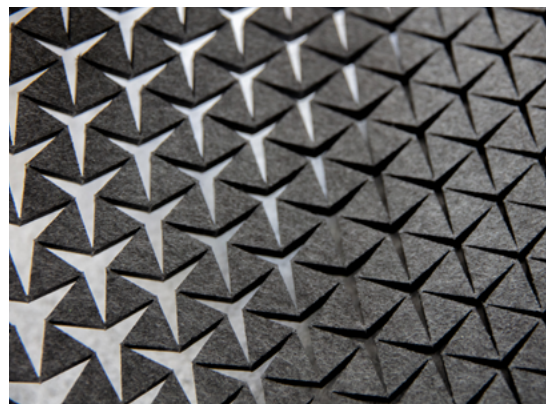
Half-cutting / Notching

By incising the material to a certain depth, curves can be formed. Thanks to the fibrous structure of the felt, the cuts are permanent, they do not break and are resistant to tearing. This allows, for example, for rounding corners or creating decorative surface patterns.



Pattern cutting

Various cutting patterns can be used to enhance the flexibility of PET felt. Incisions increase the material's pliability, making it easier to shape. The selection and scale of the patterns have a significant effect on the flexibility of the panel.



Felt connectors take advantage of the material's natural properties, such as surface friction and flexibility. This allows for tool-free assembly and easy reconfiguration, while providing both functional stability and visual interest.

Interlocking

Interlocking 2D shapes offer both decorative and practical benefits. These designs ensure precise positioning and simplify the installation process, making them ideal for various applications. The high friction force between the interlocking shapes secures the material firmly in place when pieces are inserted into one another.

Additionally, these shapes can be customized with felt in different colors and thicknesses, resulting in a unique and visually striking effect.



Connections

By making recesses in the material, two shapes can be connected. This connection is durable and firm but it could be dismantled if needed even many times.

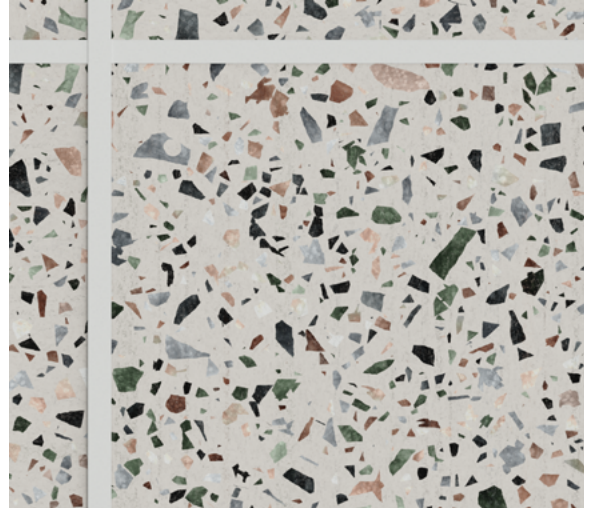


Printing enhances the design capabilities of felt by adding color, texture, and detail. Whether applied directly or through lamination, it enables personalized and functional surface finishes.



Digital Direct Print

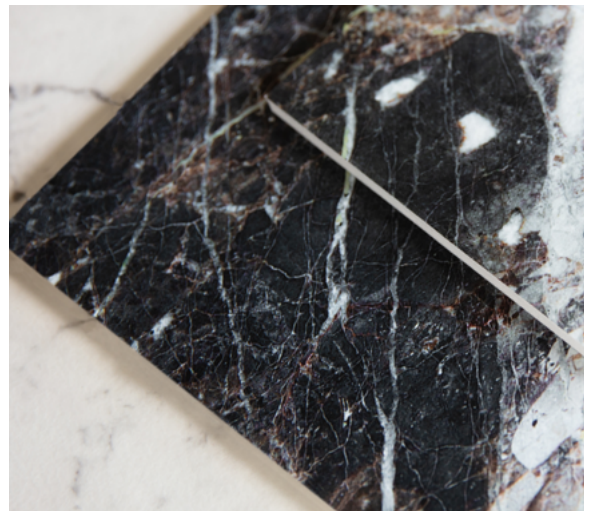
Applying patterns of different colors. Printing is possible on both sides of the felt. Printed graphics may include tonal transitions.



ForFresco®

Forfresco is our patented decorating system using thin polurethane membrane. This membrane is watertight. It could be digital printed technology to decorate. It is then appleyed as a "skin" through lamination.

We can also laminate wooden varnish, textile, linen and leather.



Multilayer composites that combine felt with other materials to enhance function and aesthetics. They offer new design possibilities through cutting, folding, and visual contrast.

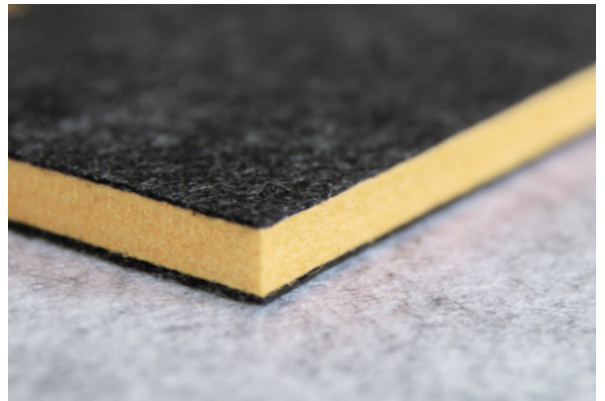
TwinFelt®

Two types of felt combined to create a base for unique projects. V-cut technology reveals the deeper layer and enables the creation of contrasting patterns.



FeltBlend®

A three-layer felt material with a colored core and two outer layers made from thin felt. V-cuts from both sides can reveal the inner color, allowing for creative visual accents or simple graphic effects within the panel.



CorkFeltFusion®

It combines PET felt panels with a thin layer of natural cork. This material can be V-cut and offers a warm, organic look. Available in various cork types for different aesthetic effects.



Fusing different types of felt together or combining it with other materials.

Magnetic Soundboard®

The combination of felt and magnets allows panels to be easily attached to vertical surfaces without the need for tools. They can be repositioned or replaced at any time, making this solution practical and flexible.



StickyFelt®

Felt with an adhesive backing on one side allows for quick application to various surfaces. At first, the adhesive lets you reposition and reapply the element if needed. Over time, it bonds more strongly, ensuring lasting durability. This solution ensures easy installation and secure attachment.



Do you have any questions?
Contact with us!

