



Wool as a Raw Material

Wool is a natural fiber harvested from sheep. Sheep's wool is highly regarded for its crimped, elastic fibers that are easily felted to form a fabric that cannot be pulled apart. This translates into durability, excellent dye ability, resistance to flame and compression, and thermal and sound insulation. FilzFelt's felts are manufactured from Merino wool that is primarily sourced from Australia, New Zealand, and South Africa.

The Merino breed originated with the Moors in Spain however the breed now thrives in areas of high altitudes and low temperatures worldwide. Merino sheep are prized for their fine hair and considered to be the highest quality sheep's wool. This natural fiber is a rapidly renewable resource as it is harvested without injuring the animal and is a biodegradeable natural material. Domesticated sheep's wool has evolved to continue growing so shearing is necessary. Wool is 'harvested' from sheep on an annual shearing cycle which yields an average of 4.5 kilograms of fleece for the entire sheep's lifespan of approximately 10-12 years. The total greenhouse gas emissions from a Merino wool sheep ranges from 8.5 ± 0.6 to 8.7 ± 0.6 kg 10-12 years.



Chain of Supply

FilzFelt enjoys long-standing relationships with its mill partners. The chain of supply ensures consistency in raw material, manufacturing processes, and in color and quality consistency. FilzFelt's felts are manufactured from virgin, 100 percent Merino wool that is primarily sourced from Australia, New Zealand, and South Africa.

Felt is produced in buildings termed as "mills". Traditionally these mills were located in rural areas where the wool was easily attainable and in a location adjacent to a source of water. FilzFelt's felt milling takes place in Germany, where most of the 100 percent wool felt is produced today. Producing wool felt is an extensive and specialized process and only a handful of wool felt mills exist today utilizing the same process (and many times, the machinery) that has been used for over a century. All manufacturing of finished products occurs in the northeastern United States.



Chemical-Free Production

100% Wool Design Felt is a nonwoven textile produced from raw wool fibers that undergo a wet felting process of matting, condensing, and pressing. This ancient process involves solely natural ingredients, including sheep's wool, water, and plant-based textiles dyes that are safely disposed of in wastewater. In addition, ten 100 percent natural colors are composed of wool and water exclusively. Volatile organic compounds (VOCs) are not used in the production of 100% Wool Design Felt.

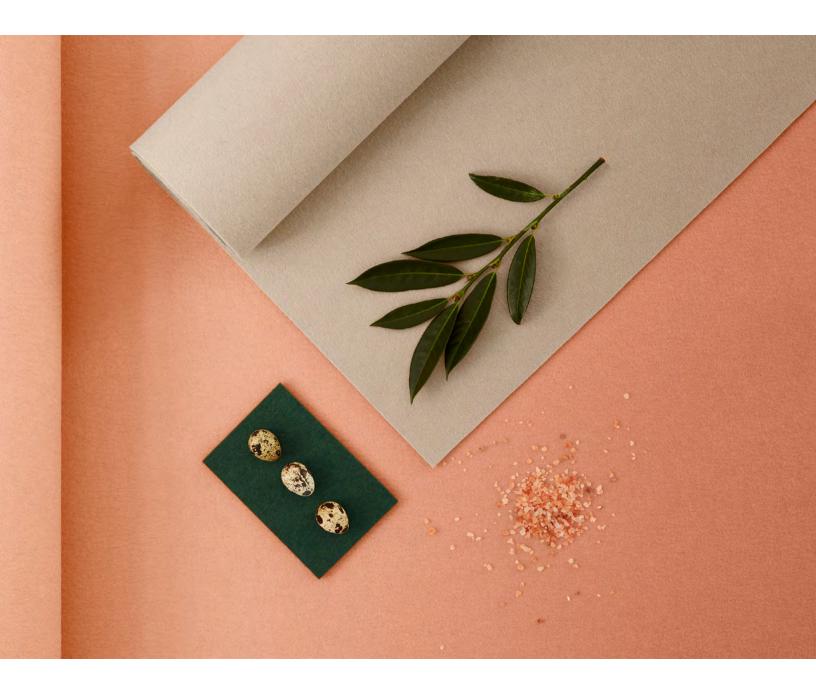
Sheep are free roaming animals and vegetable matter can be caught in their fleece. Washing and carbonizing removes some of this debris. In addition, sheep may be marked with pigment for various reasons including isolation for illness or breeding. Colors that include any non-carbonized (washed) wool content may retain these pigments as pink or blue dots. This condition is most apparent in natural colors however may be visible in uni and melange colors where the felt may appear lighter or darker. 100% Wool Design Felt is never treated with harsh chemicals, such as bleach, in order to clean or whiten and these minor changes and slight inclusions of natural fiber on the surface are evidence of natural origin of the material.



Third Party Certification

OEKO-TEX® Standard 100 is an independent testing and certification system for textile raw materials, intermediate and end products at all stages of production. Introduced at the beginning of the 1990s, the system was developed in response to the demand for textiles which are harmless to health as many components were indiscriminately branded dangerous to health. OEKO-TEX® Standard 100 created a reliable product label for the assessment of the human ecological quality of textiles for consumers and a uniform safety standard for manufacturers in the textile and clothing industry allowing practical assessment of potential harmful substances in textile products.

Testing for harmful substances includes illegal substances, legally regulated substances, known harmful (but not legally regulated) chemicals as well as parameters for health care. FilzFelt felts have tested and certified to meet the humanecological requirements for products with direct contact to skin according to Product Class II of OEKO-TEX Standard 100. This certification is renewed annually and kept on file at FilzFelt's headquarters.



Lifecycle of Wool Felt

Wool felt is a natural product. The processing of wool requires very little environmental impact compared to other natural fibers or man-made fibers. Felt has a life cycle that is substantially longer than other upholstery material. And since wool felt is made of sheep's wool and viscous staple fibers, this means that after the felt product has been used or become worn out, it can be safely disposed of as it is 100% biodegradable.

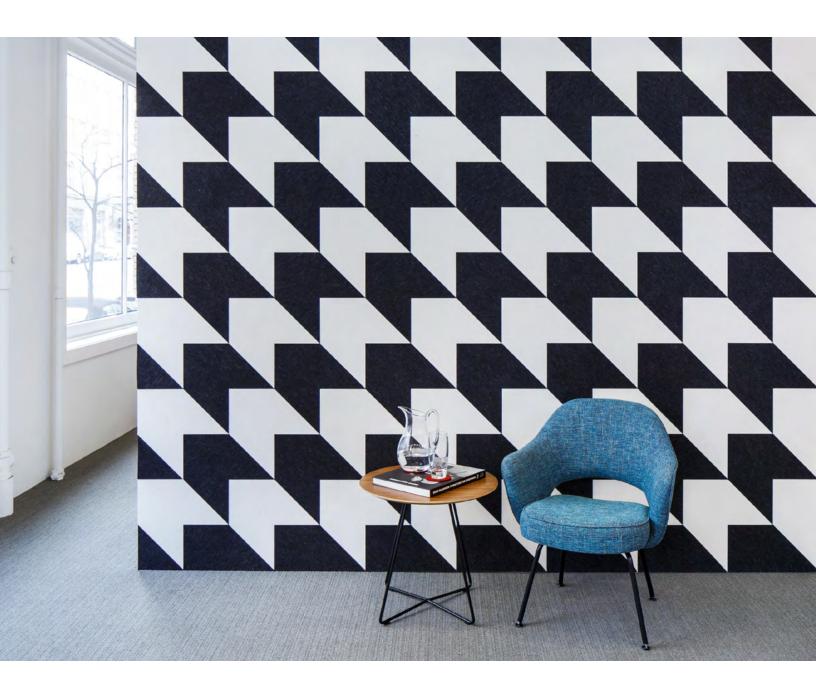
Felt remnants and offcuts are upcycled into new products sold by FilzFelt whenever possible, or sold at a substantial discount to allow others to do so. In addition, remnants and offcuts are often given to charitable organizations for use in small craft projects or promotional events. Samples and outdated swatch books returned from clients are donated to design schools for their libraries and for design projects.



Reduced Packaging and Transportation

FilzFelt continually evaluates our business practices to determine how to best support the environment. FilzFelt's parent company, Spinneybeck Enterprises, Inc., is incorporated in Ireland and therefore part of the European Union. Shipments may be made directly from the mill in Germany to various destinations throughout Europe, Great Britain, the Middle East, and the Far East. Arrangements with our mill ensure that most shipments are sea freight to mitigate the environmental impact. Felt bolts are shipped wooden crates that can be reused for shipment to our clients or broken down and returned to the mill for reuse. As a result of this program, 95 percent of packaging materials received from the mill are recovered for subsequent use. Felt bolts are shipped from our warehouse rolled in poly tubing to reduce freight costs and weight and to minimize packaging.

The dimensions of our shipping boxes of finished products have been adjusted to reduce freight costs. This adjustment reduces the total dimension of a box below the maximum allowed measurements and results in freight calculated by true weight as opposed to a 30-pound minimum. Minimizing the size of the carton also reduces the corrugated cardboard used by over 25 percent. FilzFelt employs a service to collect and recycle extra cardboard, packaging material, and wooden pallets from its facility in New York. All paper products used in our facility are recycled.



Reduced Product Maintenance

Wool is particularly well suited to felt and is superior to synthetic fibers. Characteristics include an inherent durability and resilience as the crimp or bend in the fibers gives it a natural elasticity. Such flexibility makes it durable and the outer skin of the fiber acts as a protective film, providing abrasion resistance. Lanolin, the thin waxy coating on wool fibers, makes wool naturally water and soil resistant. Plus, because wool retains moisture in every fiber, it resists flame without chemical treatment. Instead of burning when touched by flame, wool chars and self-extinguishes when removed. All of these characteristics translate into an easy-to-maintain textile that has a far longer term of use than typical textiles.

For more information on FilzFelt's environmental and sustainability practices, please email info@filzfelt.com.