

SANDALWOOD BIOFELT MATERIAL PASSPORT

CONTENT: 100% wool felt base, Biomaterial coating: Sodium Alginate, Chitosan (from crustaceans), Sandalwood powder, sunflower oil, coconut oil, glycerin, water, Calcium chloride, Tripolyphosphate polyanion (TPP)

CONSTRUCTION: Bubble wool felt coated with biomaterial to create a hybrid material

CONSTRUCTION SPECIFIC: See Sandalwood BioFelt v5 for specifics on Biomaterial. Felt is made by sandwiching bubble wrap resists between two layers of pre-felt. The resists are made from two taped-together layers of wrap and are laid out in a pattern. After felting the resists were removed and the fabric was dyed. The fabric was then stuffed with wool and the holes sewn shut. Lastly the felt was coated by a sandalwood biomaterial (hiding the closed holes)

DESCRIPTION: A 3D felted fabric with a matt dark red leather-like biomaterial coating, imitating a puffer material. The 3D elements combined with the biomaterial coating create a unique, playful and alien appearance. The shape of the bubbles and their irregular placement give the fabric an organic look. The surface texture is slightly rough and waxy. The material is voluminous, thick, warm, insulating, and protective.

COLORATION: Wool felt dyed by treebark-henna dye (2:1 Wof) combination, Biocomposite colored by sandalwood powder

FINISH: No finish applied

ESSENTIAL ATTRIBUTES:

- Felt Biomaterial Hybrid Textile
- Tactile 3D fabric imitating puffer material
- Insulating
- Slightly water resistant
- Stains
- Degradation over time not tested yet
- Biodegradable

APPLICATIONS:

- Concept garments and material storytelling
- Organic futuristic/alien designs
- 3D elements to create big silhouettes
- Outerwear

SUSTAINABILITY: Made from 100% renewable and biodegradable resources: Chitosan is made from chitin from waste crustacean shells; Alginate is made from brown seaweed, which is highly renewable and can be sustainably farmed; Biomaterial is self-dyeing through coffee filler. The wool felt is naturally dyed with treebark and henna dye, the natural tannins in the tree bark allow dyeing without the use of a mordant. The origin of wool is unknown (Best to use local wool). The material has no toxic ingredients and is fully circular. Biomaterial can be refurbished to extend lifetime

CARE TIPS: Keep dry and avoid prolonged water exposure. When wet, handle with care and air dry to prevent permanent damage. Clean gently with a damp cloth. In case of tearing or degradation, the material can be repaired by refreshing the biomaterial layer.

AFTER LIFE HANDLING: Biomaterial can be dissolved in warm alkaline water and composted to recycle wool felt fully biodegradable in compost conditions, Can be buried or shredded for soil enrichment - No toxic residues