



TECHNICAL DATA SHEET

MATERIAL :

FATES Essential Bio-Foam



MAR. 2026

Medium-hard plant-based flexible PU foam for shoe sole applications

GENERAL INFORMATION

FATES Essential Bio-Foam is a patented premium thermoset polyester polyurethane foam made from an industry-leading plant-based content of up to 72%. FATES Essential Bio-Foam has shown excellent longevity under both simulated and real-life aging conditions. The formula is an Evoco technology.

PERFORMANCE CHARACTERISTICS

- Comfortable
- Resilient material
- Low compression set
- Resistant to stress-cracking
- High-performance
- Excellent long-term performance

DETOXIFICATION BENEFITS

- FATES 107H is made through a high-efficiency molding process
- FATES 107H significantly decreases the product's carbon footprint
- Limited use of non-renewable raw materials
- Safe working environments across Evoco's R&D and production facilities
- Reduction in hazardous ingredients, such as toxic crosslinkers, heavy metal catalysts, and volatile blowing agents

THIRD-PARTY CERTIFICATION



Medium-hard plant-based flexible PU foam for shoe sole applications

PRODUCT PROPERTIES

Criteria	Unit	Standard	Essential Bio-Foam
Bio-based content	%	ASTM D6866, Farm Bill 2008, FTC Green Guides, EN 16785-1	Upto72
Density	g/cm ³	ASTM D792	0.3-0.5
Hardness	Asker C	ASTM D2240	30-55
Compression set	%	ASTM D395 (Method A)	<10
Rebound resilience	%	ASTM D3574	30-40
Tensile strength	Kg/cm ²	ASTM D412	>12
Elongation at break	%	ASTM D412	>350
Split tear strength	N/mm	SATRA TM65	>2.0
Die-C tear strength	N/mm	ASTM D624	>6

GENERAL MATERIAL INFORMATION

Criteria	Essential Bio-Foam
Material composition	A high-performance flexible thermoset polyurethane foam
Color options	Varies, PU foams are not color-segregated
Product source	Footwear manufacturing
Source location	Vietnam
Pricing	Per request
Availability	Per request

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