



**EASTERN RUBBER**  
RETREADING LEADS TO GREEN

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## **Technical Write-up: Rubberized Coconut Fiber Sheet**

### **Introduction:**

Rubberized coconut fiber sheets represent an advanced, environmentally sustainable composite material that integrates the structural integrity and resilience of coir fiber (sourced from coconut husks) with the adhesive and waterproofing characteristics of natural rubber latex. This combination results in a material recognized for its superior cushioning, sound absorption, thermal insulation, and long-term durability. The naturally high lignin content of coir imparts notable resistance to moisture and decay, thus rendering these sheets suitable for diverse applications.



### **Manufacturing Process (Brief Overview):**

Producing rubberized coconut fiber sheets involves several steps:

- **Fiber Preparation:** Coir fibers are cleaned, dried, and sometimes carded.
- **Impregnation:** The fibers are coated with natural rubber latex.
- **Moulding and Curing:** Rubber-coated fibers are moulded and heat-cured to set shape and provide elasticity.
- **Finishing:** Sheets are trimmed and may receive lamination or surface treatments.

### **Key Features and Benefits:**

The sheets combine rigidity and flexibility, offer good breathability and moisture control due to their open-cell structure, and retain their shape after compression. Made from natural materials, they are biodegradable and sustainable, making them an eco-friendly alternative to synthetic foams.

### **Applications:**

These sheets are used in:

- Bedding & Furniture
- Automotive
- Packaging
- Pet Bedding

# Technical Data Sheet: Rubberized Coconut Fiber Sheet

Product Name: Rubberized Coconut Fibber Sheet

Property	Unit	Value (Typical)	Notes
Composition	-	Coir Fiber, Natural Rubber Latex	Eco-friendly, biodegradable materials.
Nominal Density	kg/m³ (lb/ft³)	60 - 100 (3.75 - 6.25)	Density can vary based on specific manufacturing.
Hardness/Firmness	ILD (25% Indentation Load Deflection)	25 - 45 N (5.6 - 10.1 lb f)	Indicates the load required to compress by 25%.
Tensile Strength	kPa (psi)	> 150 (21.75)	Resistance to breaking under tension.
Thermal Conductivity	W/m· K	0.035 - 0.045	Low values indicate good insulation properties.
Sound Absorption Coefficient	NRC (Noise Reduction Coefficient)	0.40 - 0.70 (at 125-4000 Hz)	Higher values indicate better sound absorption.
Durability	-	Good	Resistant to sagging and degradation over time.
Odor	-	Natural, Earthy (minimal)	No harsh chemical Odors.
Environmental Impact	-	Biodegradable, Sustainable	Made from renewable resources.

**Customization:**

Please note that the dimensions of these rubberized coconut fibber sheets can be customized based on specific customer requirements.