

## Recycling of Textile Waste Materials-An Overview

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### ABSTRACT

Textile and Apparel industry is among the most essential consumer goods industry. However, textile industry is accused of being one of the most polluting industries. Not only production but consumption of textiles also produces waste. To counter the problem, textile industry has taken many measures for reducing its negative contribution towards environment. One of such measures is textile recycling- the reuse as well as reproduction of fibers from textile waste. Recycling can be done through thermal, material, chemical and mechanical processes. Textile recycling is beneficial for environmental and economic conditions, reducing demand for textile chemicals; requirement to fill and fill space is reduced consumption of less energy and reducing of water wastage. Market research and efforts are needed to increase consumer awareness and to encourage manufacturers to increase the use of recycled textile waste to new products. The increase in demand and consumption for textiles is a result for global population growth and the living standards improvement. Most of the solid recyclable wastes in the textile industry refer to natural and synthetic fiber materials, in addition to fabric wastes upon the manufacturing process. Textile manufacturers undertake waste-generating activities such as washing, drying, warp preparation, weaving, dyeing, printing, finishing, quality and process control, and ware housing, in addition to garment making. The major wastes generated by this sector are fiber wastes, scraps, hard fibers, beaming wastes, off-cuts, packaging, and spools and Dyeing, printing and finishing processes use upto 200 liter of water per kilogram of fiber, making waste water the largest waste in this sector by volume. Hence this paper is an overview about the recycling sector of the Textile and Apparel Industry.

**Keywords:** Textile waste, Waste-generating, Recycled textile, Fibers, Apparel.

