

Technical Tuesdays

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List of Some of the Waste Materials generated at each stage of Textile processing

Process	Air emissions	Wastewater	Residual wastes
Fiber preparation	Little or no air emissions generated	Little or no wastewater generated	Fiber waste; packaging waste; hard waste.
Yarn spinning	Little or no air emissions generated	Little or no wastewater generated	Packaging waste; sized yarn; fiber waste; cleaning and processing waste.
Slashing/sizing	Volatile organic compounds	BOD; COD; metals; cleaning waste, size	Fiber lint; yarn waste; packaging waste; unused starch-based sizes.
Weaving	Little or no air emissions generated	Little or no wastewater generated	Packaging waste; yarn and fabric scraps; off-spec fabric; used oil.
Knitting	Little or no air emissions generated	Little or no wastewater generated	Packaging waste; yarn and fabric scraps; off-spec fabric.
Tufting	Little or no air emissions generated	Little or no wastewater generated	Packaging waste; yarn and fabric scraps; off-spec fabric.
Desizing	Volatile organic compounds from glycol ethers	BOD from water-soluble sizes; synthetic size; lubricants; biocides; anti-static compounds	Packaging waste; fiber lint; yarn waste; cleaning materials, such as wipes, rags and filters; cleaning and maintenance wastes containing solvents.
Scouring	Volatile organic compounds from glycol ethers and scouring solvents	Disinfectants and insecticide residues; NaOH; detergents; fats; oils; pectin; wax; knitting lubricants; spin finishes; spent solvents	Little or no residual waste generated.
Bleaching	Little or no air emissions generated	Hydrogen peroxide, sodium silicate or organic stabilizer; high pH	Little or no residual waste generated.
Singeing	Small amounts of exhaust gasses from the burners.	Little or no wastewater generated.	Little or no residual waste generated.
Mercerizing	Little or no air emissions generated.	High pH; NaOH.	Little or no residual waste generated.
Heat setting	Volatilization of spin finish agents applied during synthetic fiber manufacture.	Little or no wastewater generated.	Little or no residual waste generated.
Dyeing	Volatile organic compounds	Metals; salt; surfactants; toxics; organic processing assistance; cationic materials; color; BOD; sulfide; acidity/alkalinity; spent solvents.	Little or no residual waste generated.
Printing	Solvents, acetic acid from dyeing and curing oven emissions; combustion gasses; particulate matter.	Suspended solids; urea; solvents; color; metals; heat; BOD; foam.	Little or no residual waste generated.
Finishing	Volatile organic compounds; contaminants in purchased chemicals; formaldehyde vapor; combustion gasses; particulate matter.	BOD; COD; suspended solids; toxics; spent solvents.	Fabric scraps and trimmings; packaging waste.
Product fabrication	Little or no air emissions generated.	Little or no wastewater generated.	Fabric scraps.

“Have a happy week ahead”

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