

Consumption of Technical Textiles and Nonwovens in Germany: World Market Forecast Tables to 2010

Description of Products Covered in these Forecasts

Application Area and Product	Product Description and Function
Agrotech: Woven crop cover, protection	General agricultural, horticultural wovens for protection: wind-breaks, ground matting, tobacco cloth, etc (including tarpaulins)
Agrotech: Land netting	Nets for crop protection, fruit collection, etc. Includes balewrap nets
Agrotech: Nonwoven crop cover, protection	Fabrics for crop cover, protection, mulching, etc
Agrotech: Capillary matting	Capillary matting, ground cover and similar heavy-weight nonwovens for agriculture/horticulture
Agrotech: Fishing ropes	Ropes for fishing - towing nets, fish farms, etc (only)
Agrotech: Fishing line	Lines for fishing (long line, rod and line)
Agrotech: Fishing nets	Nets for all fishing purposes, including seine nets, fish farms etc
Agrotech: Baler twine	Twine used to tie bales of hay etc. (excludes balewrap nets)
Buildtech: Tarpaulins	Heavy woven fabrics for protection and storage applications
Buildtech: Textile structures	Heavy woven fabrics for marquees, tenting, roofs, etc - including architectural membranes
Buildtech: Awnings, canopies	Woven fabrics for commercial and industrial awnings and canopies
Buildtech: Roofing felts	a) Fabrics, impregnated with bitumen or similar, for use as roofing felts (flat roofs and underlay). b) Sewer linings.
Buildtech: Woven roofing	Fabrics for use as substrates in single ply roofing
Buildtech: Roof scrim	Support for nonwovens (e.g. felt) and for PVC coating, for use on roofs
Buildtech: Hoardings	Fabrics for billboards, hoardings, mostly for advertising.
Buildtech: Scaffold nets	Scaffolding nets to protect against falling debris; façade netting with or without printed advertising
Buildtech: Housewrap	Membranes for insulating houses, some breathable
Buildtech: Concrete reinforcement	Loose fibre used to reinforce concrete
Buildtech: Composites	a) Fibre reinforced plastic for building components, shower trays, swimming pools, wind blades, etc. b) Scrim for concrete reinforcement
Clothtech: Interlinings, woven & knit	Woven and knitted fabrics used to provide support and structure to garments
Clothtech: Interlinings, nonwoven	Nonwoven fabrics used to provide support and structure to garments
Clothtech: Waddings	Wadding/fibrefill used to provide insulation in garments
Clothtech: Shoe laces	Shoe and boot laces
Clothtech: Shoe components	Linings, components etc for most shoes and trainers, (excluding artificial suede, leather substrates and PVC substrates)
Clothtech: Sewing threads	Threads used in all garment applications
Clothtech: Fasteners	a) Zip teeth b) Velcro (hook and loop) fastenings
Clothtech: Labels	Printed and woven labels for all applications
Geotech: Ground stabilisation	Geotextile fabrics for stabilisation, separation, drainage
Geotech: Soil reinforcement	Geotextile fabrics for reinforcement of soil
Geotech: Pit linings	Geotextile fabrics for lining waste ponds, pits, landfill, etc
Geotech: Erosion control	Geotextile fabrics for erosion control
Hometech: Woven & knit wipes	Cleaning wipes for domestic applications in woven, or knit form
Hometech: Nonwoven wipes	Cleaning wipes for domestic applications in nonwoven form, including floor mops, etc

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Application Area and Product	Product Description and Function
Homotech: Vacuum filters	Filter media for domestic and industrial vacuum cleaners
Homotech: HVAC filters	Heating, ventilation and air conditioning filters for domestic and industrial use
Homotech: Pillow tickings	Tickings for filled products (pillows, duvets, cushions)
Homotech: Mattress tickings	Outer fabrics for wrapping mattresses
Homotech: Mattress components	Flanging and quilt backing for mattresses
Homotech: Mattress spring wrap	Fabrics used to wrap springs in sprung beds
Homotech: Spring insulators	Flat fabrics (decking) used to cover springs in beds or upholstery
Homotech: Platform cloth	Fabrics used as a base for cushions on upholstered furniture
Homotech: Dust cloths	Fabrics attached to base of furniture
Homotech: Other furniture components	Skirt linings and other fabrics for use in upholstered furniture, bedding etc, not elsewhere specified
Homotech: Fibrefill & waddings	Pillow, cushion, duvet filling; wadding used in upholstered furniture and mattresses
Homotech: Furniture webbings	Strapping used to support seating in upholstered furniture, etc
Homotech: Curtain tapes	Header tapes for drapes and nets
Homotech: Woven carpet backings	a) Woven fabrics used as a primary backing for tufted carpets (excluding ground yarns for woven carpets) b) Woven fabrics used as a secondary backing for tufted carpets
Homotech: Nonwoven carpet backings	a) Nonwovens used as a primary backing for carpets b) Nonwovens used as a secondary backing for carpets, underlay and backing to carpet tiles
Homotech: Carpet ground yarns	Ground yarns for woven carpets
Homotech: Sewing threads	Threads used in all furnishing, household textile applications
Homotech: Composites	Fibre-reinforced plastic materials for household use (e.g. consumer appliances, white goods)
Indutech: Conveyor belting	Woven fabrics for conveying and speciality applications
Indutech: Hoses	Braids, woven and knitted fabrics used to reinforce rubber and polymer hoses for industrial applications
Indutech: Drive belting	Machine drive and power transmission belting including flat and coated products as well as V-type designs
Indutech: Brushes	Bristles for brushes of all types
Indutech: Abrasives	Fabrics for a variety of polishing and abrasion applications
Indutech: Woven & knit wipes	Cleaning wipes for industrial applications in knit/woven form
Indutech: Nonwoven wipes	Cleaning wipes for industrial applications in nonwoven form
Indutech: Woven filters	All woven filters for use in industrial applications
Indutech: Nonwoven air filters	High Efficiency Particulate (HEPA) and Ultra Low Penetration (ULPA) products and other non-HVAC air filters for industry.
Indutech: Nonwoven dust filters	Filter media for dust bag-houses
Indutech: Nonwoven liquid filters	Filter media for swimming pools, food, vessel bags, etc.
Indutech: Other nonwoven filters	All other nonwoven filters
Indutech: Cigarette filters	Tow for cigarette filters
Indutech: Papermaking felts	Batting and support elements of press, forming and drying fabrics (or felts) in papermaking
Indutech: Battery separators, etc	a) Fabrics for battery separators b) Fabrics for floppy disc liners, transformers, etc (excludes PCBs)
Indutech: Cable components	Central strength members and rip cord yarns for use in cables
Indutech: Electrical composites	a) PCBs b) Other GRP composites for electrical applications, including other producer durable equipment
Indutech: Seals gaskets	Materials used for industrial seals and gaskets
Indutech: Fibrefill	Fibrefill and waddings for miscellaneous industrial applications
Indutech: Anti-corrosion composites	GRP for anti-corrosion end-uses - storage pipes, tanks, etc

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Application Area and Product	Product Description and Function
Indutech: Liftingwebs	Webs and roundslings for lifting purposes
Indutech: Ropes	Ropes and cords for use in industry
Indutech: Misc coated fabrics	a) Coated fabrics storage silos b) Coated fabrics for oil booms c) Heavy coating substrates for covers and miscellaneous applications
Medtech: Woven gowns, drapes	Patient and surgeon gowns, drapes and garments used in surgical and other medical situations (excluding nurse-type garments)
Medtech: Nonwoven gowns, drapes	Lightweight nonwoven garments used in protective and medical situations
Medtech: Woundcare woven, knit	All medical wovens and knits such as bandages and dressings, gauze, slings, etc
Medtech: Woundcare nonwoven	Nonwovens for bandages, dressings and other medical end-uses not elsewhere specified
Medtech: Sterile packaging	Sterile medical packaging
Medtech: Medical mattresses	Waterproof coated fabrics for mattresses
Medtech: Coverstock	Outer fabrics used in sanitary towels, diapers, incontinence pads
Medtech: Cotton wool	Loose fibre used for removing or applying powders or liquids
Medtech: Wipes	Wipes for cleansing skin, face, hands, etc
Mobiltech: Car tyre cord	Fabric for reinforcement of car tyres
Mobiltech: CV tyre cord	Fabric for reinforcement of tyres other than for cars
Mobiltech: Auto drive belt	Fabric for reinforcement of automotive drive belts, etc
Mobiltech: Auto hose	Fabric for reinforcement of automotive hoses
Mobiltech: Cabin filters	Filter media for automotive, mainly cabin filters, but also engine filters, air-intake filters, fuel filtration
Mobiltech: Seat belts	Narrow woven safety belt fabric for vehicles
Mobiltech: Air bags	Fabric for reinforcement of automotive safety air bags
Mobiltech: Tufted carpet	Tufted automotive floor-coverings - face fabric only
Mobiltech: Needled carpet	Needlepunched nonwoven automotive floor-coverings
Mobiltech: Auto carpet backing	Primary (for tufted) and secondary carpet backing for automotive end uses
Mobiltech: Woven & knit trim	Woven, knitted automotive trim : boot liners, head liners, shelving, door panels, etc
Mobiltech: Nonwoven trim	Nonwoven automotive trim : boot liners, head liners, shelving, door panels, etc
Mobiltech: Upholstery	Woven & knitted automotive seating face and backing fabric
Mobiltech: Insulation	Insulation for engine compartments, wheel arches, foot-wells, etc
Mobiltech: Truck covers	Heavy woven fabrics for truck covers, curtain-sides and other protection and storage applications (e.g. ships' hold covers)
Mobiltech: Tiedowns	Narrow woven belts for truck curtain-sides and cargo restraints
Mobiltech: Transport composites	FRP for use in cars, trains, buses (mostly components, aerofoils, spoilers, seats) etc
Mobiltech: Marine composites	Glass fibre for use in boat bodies GRP - hand lay-up, etc
Mobiltech: Ropes	Ropes used in transport, including marine, tethering, etc
Packtech: FIBC big bags	a) Flexible Intermediate Bulk Containers ("Big Bags") b) Laundry bags and other bulk packaging products
Packtech: Sacks	Sacks for storage, etc
Packtech: Twine	Twine and string for tying packages, etc (excludes agricultural applications)
Packtech: Teabags	Non-paper tea bags and coffee filters
Packtech: Misc. nonwoven packaging	a) Food soaker pads b) All other nonwoven packaging items except tea bags, e.g. envelopes, durable papers
Packtech: Netting	Net packaging for storing, packing, transporting, retailing foodstuffs, toys, and other

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Application Area and Product	Product Description and Function
Packtech: Misc. woven packaging	a) Woven fibre strapping b) Other miscellaneous woven packaging items such as lightweight mail-bags
Protech: FR clothing	Fabrics for use in clothing worn to protect against flame and heat
Protech: NBC	Fabrics to protect against nuclear, biological and chemical exposure
Protech: Cut, slash protection	Fabrics for garments and gloves used to provide protection from knives, glass or other sharp implements; chain saw protection
Protech: Ballistic protection	Fabrics designed to deflect or absorb impact of bullets, etc
Protech: Face masks	Face masks for medical, industrial (clean room), and domestic applications
Protech: Dust protection	Lightweight barrier fabrics for garments worn to provide protection against dust or other particulate matter; clean room fabrics
Protech: Disposable chemical protection	Fabrics for disposable garments worn to provide protection against harmful chemicals and gases, pesticides, etc
Protech: Durable chemical protection	Fabrics for durable garments and gloves worn to provide protection against harmful chemicals and gases
Protech: FWC	Fabrics for foul weather clothing using coating or laminates, for all end uses
Protech: Hi-vis	Fluorescent and phosphorescent (not retro-reflective) fabrics for gilets, trousers, etc (excludes FWC)
Protech: Harnesses	Safety straps for workers, climbing, push chairs, child car seats, etc
Sporttech: Boat covers	Boat covers and other fabrics used to provide protection from adverse weather on pleasure craft
Sporttech: Bookcloth	Substrate for leather-type covering of hard backed books
Sporttech: Shopping bags	Outer fabrics plus substrates for soft sided shopping and other small bags, carriers, etc (excluding handbags, leathersgoods)
Sporttech: Artificial leather substrates	Coating substrates for artificial leather handbags, luggage, small goods
Sporttech: Sports bags, luggage	Face fabrics and substrates for soft sided luggage, bags for carrying sports gear, rucksacks
Sporttech: Sailcloth	Fabrics used in mainsails, foresails and spinnakers
Sporttech: Artificial turf	Material used to provide surfaces for sporting activities
Sporttech: Climbing ropes	Ropes and cords used for climbing, yachting, etc
Sporttech: Sports nets	Nets for soccer, tennis, cricket, etc and for court protection
Sporttech: Equipment composites	Materials used in the production of skis, racket frames, canoes, jet-skis
Sporttech: Air sport fabrics	Fabrics for balloons, kites, para-gliders, parachutes
Sporttech: Tents	Fabrics for use in lightweight, portable tents for personal camping/sleeping purposes
Sporttech: Sleeping bag fabrics	Outer fabrics for sleeping bags
Sporttech: Sleeping bag filling	Fibrefill/wadding for sleeping bags
Sporttech: Animal webbing	Pet leads, collars, horse halters, etc
Sporttech: Flags	Fabrics for flags, pennants, bunting, for parades, shows, etc.
<i>Oekotech: Housewrap (Buildtech), Erosion control (Geotech), Pit linings (Geotech), Woven filters, (Indutech), Nonwoven dust filters (Indutech), Automotive insulation (Mobiltech)</i>	<i>Products extracted from the above list that are used for environmental control purposes</i>

Reporting Levels Used in the Germany Forecast Tables

Application Areas	Fibre Types	Fibre Forms (Yarn Types)	Fabric and Other End-Use Product Types	Coating Types
Agrotech	Cotton	Polymer Chip	Unspun Fibre	Uncoated
Buildtech	Wool	Staple Fibre	Woven	PVC
Clothtech	Other Natural	Spun Staple	Knitted	PU
Geotech	Woodpulp	Textile Multifilament	Nonwoven	Rubber
Hometech	Viscose	High Tenacity (Industrial) Multifilament	Yarn Type Products	Other Coatings
Indutech	Other Cellulose	BCF	Other Fabric	
Medtech	Polyester	Monofilament Tape/Slit Film Yarn		
Mobiltech	Polyamide			
Packtech	Polypropylene			
Protech	Polyethylene			
Sporttech	Acrylic			
	Aramid			
	Other Synthetic			
	Carbon			
	Glass			
	Other Inorganic			
Total: 11	Total: 16	Total: 7	Total: 6	Total: 5

GERMANY

End-Use Products in Technical Textiles and Nonwovens: World Market Forecast Tables to 2010

Structure of the Tables

Part A consists of **24 Application Area Tables**, which provide an overview of German consumption over the period 1995-2010. These tables split consumption in Germany by individual application area and end-use product over the period 1995-2010.

Part B consists of **5 Summary Tables**, which provide an overview of Germany consumption over the period 1995-2010. These tables split consumption by 16 fibre types (e.g. polyester), 7 fibre forms (yarn types), 6 fabric types (e.g. knitted) and 5 coating types (e.g. PVC).

Parts C-F provide a detailed analysis of **148 individual end-use products** consumed within Germany with forecasts to 2010:

- Part C (2 tables) shows the relative importance of each of all the **16 fibre types** (e.g. polyamide) in the production of each product consumed in Germany in 2002 and 2010.
- Part D (2 tables) provides estimates and forecasts of consumption for each product across **7 fibre forms** (e.g. textile multifilament) in 2002 and 2010.
- Part E (4 tables) provides estimates and forecasts of consumption for each product across **6 fabric types** (e.g. woven) in 2002 and 2010.
- Part F (4 tables) provides estimates and forecasts of consumption for each product across **5 coating types** (e.g. PU) in 2002 and 2010.