

# **Woollen Spinning, Weaving,** **Knitting, Dyeing, Bleaching and** **Printing Technology**

**(Mule Spinning, Woollen Yarns, Woollen and Worsted Weaves, Steep and Reclining Twills, Wool Dyes, Ring Dyeing, Ring Dyeing, Fluorochemicals, Mothproofing, Soluble Vat Dyes, Bisulfite Bleach, Bleaching Wool, Hank Dryers, Dyeing Wool Mixtures, Chlorinated Wool, Ring Dyeing)**

# Introduction

Spinning is a major industry; it is part of the textile manufacturing process where three types of fibre are converted into yarn, then fabric, then textiles. The textiles are then fabricated into clothes or other artifacts. The fundamental operations for the stocks of fibers from which a woollen yarn is made are opening, cleaning, mixing, forming a slubbing or roving and finally thinning the roving to the required yarn number and twisting it to produce a yarn possessing the requirements for subsequent processing such as warping, winding, weaving, finishing and dyeing.

These demands vary with the different conditions confronted in manufacturing but include the following features: strength, elasticity, uniformity in weight per unit length and even distribution of twist. Woollen spinning involves three principal operations, irrespective of whether the mule or the frame or ring spinner is used, namely: Drafting, final drawing out, Twisting, or insertion of twist, Winding on, or packaging. Weaving constitutes the actual production of cloth or fabric, i.e., to combine the essentially one dimensional textile structure thread or yarn in such a way as to result in an essentially two dimensional structure of cloth of certain appearance, hand and strength.

Knitting is the art and science of constructing a fabric by inter lacing loops, there are two types of knitting: warp and weft knitting. In recent years whole new classes of dyes such as fiber reactive, disperse, cationic basic, neutral dying premetalized have been discovered and produced for the dyeing of the natural and new synthetic, hydrophobic fibers. Bleaching improves whiteness by removing natural coloration and remaining trace impurities from the cotton; the degree of bleaching necessary is determined by the required whiteness and absorbency.

Cotton being a vegetable fibre will be bleached using an oxidizing agent, such as dilute sodium hypochlorite or dilute hydrogen peroxide. If the fabric is to be dyed a deep shade, then lower levels of bleaching are acceptable, for example. However, for white bed sheetings and medical applications, the highest levels of whiteness and absorbency are essential.

Wool fiber production technology necessitates full understanding of its growth, pristine structure, physical, chemical and functional properties as well as processes involving manufacture of textile fibers.

## **Market Outlook**

India's wool and woollen textile industry is the seventh-largest in the world. India's wool and woollen industry can broadly be divided into 10 major product categories: worsted yarn, woollen yarn, wool tops, fabric (woollen/worsted), shoddy yarn, shoddy fabrics, blankets, knitwear, hand-made carpets and machine-made carpets.

# Woollen Fabrics

Demand : Past and Future	
Year	(In Million Metre)
1990-91	51.00
2000-01	64.00
2001-02	65.00
2002-03	67.00
2003-04	69.35
2004-05	71.57
2005-06	72.10
2006-07	73.60
2007-08	73.85
2008-09	75.10
2009-10	81.50
2010-11	85.30
2011-12	86.70
2012-13	90.15
2013-14	91.10
2014-15	92.60
2015-16	95.30
2016-17	98.50
2017-18	105.00
2018-19	107.35
2019-20	110.00
2024-25	124.45



# Market Growth Rates of Woolens

Market Growth Rates (%)		
Year	WF	WKH
1990-91-2000-01	2.3	5.4
2001-02-2006-07	2.5	2.3
2006-07-2011-12	3.3	7.0
2011-12-2019-20	3.0	4.8
2019-20-2024-25	2.5	3.2

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Mothproofing, Acid Dyes, Basic Dyes, Direct Dyes, Woollen Ring Frame Spinning, Wool Blends with Man-Made Fibers, Punch or Ball Winding, Stretch-Breaking Methods, Pirnless Weaving, Plain, Rib, and Purl Stitches, Tuck and Miss Stitch Fabrics, Stripping Dyed Wool, Machine and Spinning Oils, Wool Dyeing Machinery, Piece-Dyeing Machinery, Potassium Permanganate Bleach, Parts of Noble Comb, Pointed and Herringbone Twills, Broken or Reversed Twills, Corkscrew Twills, Inter-Locking and Offset Twills, Modern Dyestuffs, Lime in Pulled Wools, Beam Dyeing, Vigoureux or Melange Printing, Anti-Yellowing Treatment, Finishing Helanca Ski Cloth, Npcs, Niir, Process Technology Books, Business Consultancy, Business Consultant, Project Identification and Selection, Preparation of Project Profiles, Startup, Business Guidance, Business Guidance to Clients, Startup Project, Startup Ideas, Project for Startups, Startup Project Plan, Business Start-Up, Business Plan for Startup Business, Great Opportunity for Startup, Small Start-Up Business Project, Best Small and Cottage Scale Industries, Startup India, Stand Up India, Small Scale Industries, New Small Scale Ideas for Wool Bleaching Industry,

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and Reclining Twills, Wool Dyes, Ring Dyeing, Ring Dyeing,  
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Bleaching Wool, Hank Dryers, Dyeing Wool Mixtures, Chlorinated  
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**Niir Project Consultancy Services**

**106-E, Kamla Nagar, Opp. Spark Mall,**

**New Delhi-110007, India.**

**Email: [npcs.ei@gmail.com](mailto:npcs.ei@gmail.com) , [info@entrepreneurindia.co](mailto:info@entrepreneurindia.co)**

**Tel: +91-11-23843955, 23845654, 23845886, 8800733955**

**Mobile: +91-9811043595**

**Website : [www.entrepreneurindia.co](http://www.entrepreneurindia.co) , [www.niir.org](http://www.niir.org)**

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**Requirement collection**



**Thorough analysis of the project**



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**Report Compilation**



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- *Aluminium And Aluminium Extrusion Profiles & Sections,*
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- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
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- *Hotel & Hospitality Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*



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- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*



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- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*



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- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*



- *Township & Residential Complex*
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- *Waste Management & Recycling*
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# Contact us

**Niir Project Consultancy Services**

**106-E, Kamla Nagar, Opp. Spark Mall,**

**New Delhi-110007, India.**

**Email: [npcs.ei@gmail.com](mailto:npcs.ei@gmail.com) , [info@entrepreneurindia.co](mailto:info@entrepreneurindia.co)**

**Tel: +91-11-23843955, 23845654, 23845886, 8800733955**

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