

**Uses of Nonwoven Spunlace Fabric**  
**IN**  
**Wound Care Dressings &**  
**Surgical Drapes /Gowns**

**Presented by**  
**Basudev Basu**



# COMPANY PROFILE



- Started in 1990 as 100% Export Oriented Unit For 100% Cotton Yarn.
- Since Expanded Into Several Divisions /Locations /Products.
- Winner of Several Export Awards for excellence in Textile exports, awarded by Govt.
- Market Mix Today – Exports 65%, Domestic ( India ) 35%.
- Skilled workforce of 2400 employees.
- ISO 9001: 2015 & ISO 14001: 2015 certified.
- Recognized “Trading House”.
- 100% captive power generation.
- Annual Turnover USD 200 million & Continuously Growing.





# **GINNI FILAMENTS LIMITED -** **DIVISIONS**

- **GINNI SPINNING – KOSI**
- **GINNI KNIT PROCESSING - KOSI**
- **GINNI GARMENTS - NOIDA**
- **GINNI NONWOVENS - PANOLI**
- **GINNI CONSUMER PRODUCTS - HARIDWAR**



# GINNI NONWOVENS



Ginni Nonwovens is manufacturing Spunlace Nonwoven fabrics in a state-of-the-art modern facility at Panoli, Gujarat located in the western part of India. The plant capacity is 10,000 Metric Tonnes per annum and can produce a wide variety of roll goods. The technology and equipment have been provided by world's leading textile machinery supplier M/S Rieter Perfojet, France



# GINNI CONSUMER PRODUCTS



Clea -Makeup Remover Wipes



Magicia -Dry Facial cleansing cloths



Revitalizing Face Mask



Baby Wipes



Hygiene Wipe



Home Care Dry Cloth



Nonwovens Fabrics are manufactured with web of directionally or randomly oriented fibres, excluding paper and products which are woven, knitted, tufted, stitch bonded”.

- Spunlace is a Nonwoven production technology where fibers are laid into a web and then entangled together by application of high pressure water jets.
- Its main advantage is that the **fabric produced is of high purity, and free from any chemicals and toxins.**



- Spunlace Nonwoven fabrics are used in various hygiene products ranging from baby diapers, to adult incontinence products. They are used as an alternative to traditional textiles due to their absorption properties, softness, smoothness, comfort.



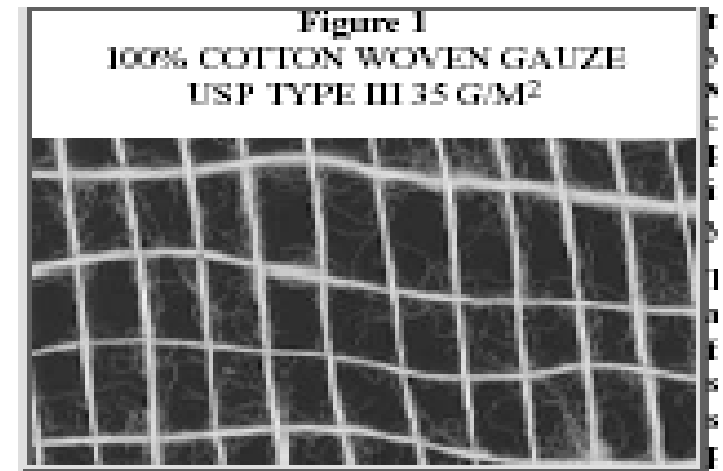
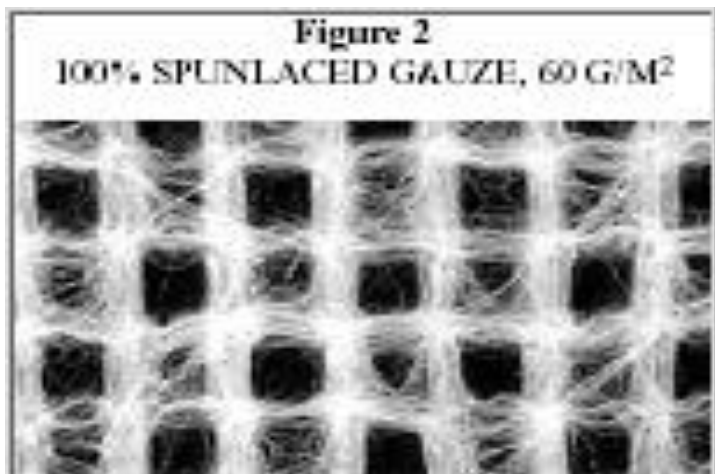


# Wound Care Dressings



# Spunlace Nonwoven Fabrics

- Aperture Spunlace fabrics structure is like cotton gauze fabric.
- These aperture spunlace gauze fabrics can be used for Gauze Swab, Abdominal Pad, Combined Dressings, Eye Pad, Gamzi Roll and etc



mm or 1/50 inches) with a needle width of two



# Functions of Wound Dressing

The basic function of a dressing is intended to provide protection to the wound from external factors and promote healing. However, it should also perform following functions -

- To assist in the removal of non-viable tissues, foreign debris and residual material.
- To protect the host from micro-organisms & infection
- To help in building & protecting new epidermal.
- Should not recreate a wound or disturb a healing wound while changing the dressing.
- To provide patient comfort





# Advantages of Nonwoven Over Woven Gauze

<b>PARAMETER</b>	<b>ADVANTAGE</b>
Liquid absorbency time	<b>Faster absorption of liquids / exudates</b>
Absorption capacity	<b>More absorption capacity</b>
Feel	<b>Softer feel keeps patient more comfortable</b>
Chemical processing - Sizing, de-sizing, scouring, bleaching	<b>No requirement of chemical processing makes nonwoven fabric free of impurities. Hence, the chances of presence of any chemical residue are eliminated.</b>
Production area environment	<b>Clean room production environment avoids any chances of contamination, dirt etc</b>



# Advantages of Nonwoven Over Woven Gauze

PARAMETER	ADVANTAGE
Chances for presence of natural impurities	<b>The chances of natural impurities are eliminated, as the fibre used are re-generated ones.</b>
Presence of minute metallic impurities and contaminations	<b>On line monitoring for metallic impurities avoids chances of the same in the final gauze</b>
Adherence to wound	<b>Thick yarns in loose woven structure tends to get trapped in newly built tissues, and re-opens the wound while changing the dressing.</b>

## Snap-short of Uses of Spunlace fabric in wound care dressings

- Spunlace nonwoven is safe, hygienic.
- Spunlace nonwoven possess better absorption characteristics and wicking properties than woven materials
- Internationally, more than 50% market has shifted from woven to Spunlace Nonwoven wound care products



# **Surgical Drapes/ Gowns**



## Standards and Classification of Protective Apparel and Drapes Intended for Use in Health Care Facilities

- The main objectives of the standard are:
  - To help end-users select the types of drapes and gowns most appropriate for a particular task
  - Assist manufacturers in qualifying, classifying and labeling the barrier performance of their products
- These objectives are accomplished through a system of classification based on the products (in the critical zones)
- There are four levels of barrier performance, level 4 being the highest protection available





# Critical Zones

- The critical zones as those areas where direct contact is likely to occur with
  - Blood
  - Body Fluids
  - OPIM (other potentially infectious material)
- Critical areas include the material as well as areas of construction, such as seams of the dressings



# Other Considerations

- **Sterility – Meet requirement for medical devices  
(Use appropriate sterilization method – Gamma, ETO, Steam ...)**
- **Bio-compatibility – Skin sensitivity and cyto-toxicity**
- **Cleanliness**
- **Quality**
- **Packaging**



# GINNI – MEDICAL FABRICS SPECIFICATIONS (DRAPES)

Methd	Testing Parameter	Unit	Product Reports	Tolerance
ISO R 1833 - 1971	Material Composition	%	50 Viscose,50 Polyester	
EDANA 40.3-90	Mass per unit area	G/m2	73	±3
EDANA 20.2-89	Tensile strength			
Dry MD		N/5cm	130	Min 100
Dry CD		N/5cm	28	Min 20
EDANA 20.2-89	Elongation at Break			
Dry MD		%	28	±12
Dry CD		%	135	±30
EDANA 10.3-89	Liquid absorbancy time	s	<10	
EDANA 10.3-89	Absorptive Capacity	%	1250	Min 1100
IS 1966	Bursting Strength	Kpa	>45	



**GINNI – MEDICAL FABRICS SPECIFICATIONS**

<b>Methd</b>	<b>Testing Parameter</b>	<b>Unit</b>	<b>Products Report</b>	<b>Tolerance</b>
EN 1644-1	PH-Value	7	±1	
ISO 811	Hydro head	cmwc	>30	
EN 11737	Bioburden	CFU/g	<100	
EN 11737	Pathogenic Germs		No Bacteria	
ISO 10993-10	Biocompactivity		Pass	





## SUMMARY

- **Ginni's Nonwoven products are qualifying the BIS standard**



## Support required from Government :

- A) To create and enhance the Awareness of higher level of hygiene and Medical Safety - provided by Non Woven Medical product as a THEME.
- B) To Create Awareness and enforce the standards- developed by BIS
- C) To Make NW Medical products available to patients, users and Medical practitioners- through inclusion of NW Medical Products in Tenders floated by Govt medical hospitals and institutions.

These will help enhance **Medical safety and higher level of hygiene** for all Indians with times to come.



# Thanks



For any Queries , we are available with following mail id :

[Basudev.basu@ginnifilaments.com](mailto:Basudev.basu@ginnifilaments.com)

[Sachin.kulkarni@ginnifilaments.com](mailto:Sachin.kulkarni@ginnifilaments.com)



**Ginni Filaments Limited**