

ULTRASONIC TECHNOLOGY USED ELASTICIZED NONWOVEN AND VARIOUS SUCKING MATERIAL USE TO CREATED ADULT DIAPER

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ABSTRACT

The literature on washable person diaper making and targeted on eco-friendly products. Normally, toddler and person diaper making products by means of used chemical primarily based finishing. So, we taking non-chemical herbal based totally ending carried. The making grownup diaper is 10-15 washed and reused. After this fabric also biodegradable. Bamboo, modal and soybean used to be used as an absorbency fabrics have been examined water repellent and absorbency, prior to designing and evaluating the products. We are used ultrasonic nonwoven elastic. In this elastic is more comfortable and biodegradable also then it is very soft, non-itching skin, light weight fabric and also durable. In cotton material we are used water repellent finish we are adding natural merchandise like soybean oil and terbutylene oil. So, these oil eco-friendly products. There are fabric coatings method used. End result show that the coated cloth posses right water repellency traits and exquisite durable wear and tear.

Keywords: Biodegradable, Chemical free, launderable diaper, antifungal, oil cloth.

INTRODUCTION

Boom in the adult-diaper market place is out pacing that of each different paper-primarily based family staple, due in element to an growing older population however additionally due to the removal of the stigma of using such merchandise. In step with worldwide market Insights' industry evaluation record, the disposable incontinence product marketplace length changed into over US\$ 8 billion in 2015 and is predicted to exceed US\$ 12 billion by means of 2024. Not best is the need for diapers and incontinence merchandise growing, consumers are traumatic more comfort and performance. Manufacturers are the usage of modern new technologies, generating disposable diapers and undies with softer, lighter and smoother fabric which can be constructed to suit nicely with high elastic capability Bamboo cloth is a natural fabric crafted from the pulp of the bamboo grass, the bamboo fibre is then made by means of pulping the bamboo grass till it separates into skinny threads of fibre, that is then spun and dyed for weaving into cloth.

Bamboo material is much like the softness of silk. because the fibres are with out chemical treatment, they may be clearly smoother and rounder with no sharp spurs to irritate the skin, making bamboo cloth hypoallergenic and ideal for those who experience. bamboo is likewise antibacterial and anti fungal.

Soy material made from processed soy proteins is vivid, breathable, and stretchy. but, it isn't suitable for the dyeing manner and it isn't always durable.

Modal is a wood pulp primarily based cellulosic fiber, produced from pure wood chips from the beech tree. This cloth has the specific feature of being moisture-wicking. It absorbs the sweat from your body quick after any physical pastime, preserving you cool and dry. Modal fabric offers you the sensation of natural silk with excessive durability and smoothness.

Fleece is made by weaving very first-rate fibers into a light fabric, that is then brushed into the fluffy, thick material we realize these days. while a few fleece today is made with polyester, fleece crafted from natural fibers, especially cotton, are higher for the surroundings. Cotton fleece is likewise breathable even as retaining you heat.

MATERIAL AND METHODOLOGY

Typs of Materials:

Soybean fabric : Soy fabric additionally has precise homes due to its chemical composition. As an example, this fabric is UV-resistant, and it is also exceptionally antimicrobial. Due to its light-reflective traits, soy fabric looks as if silk in addition to being very soft and light-weight.

Characteristics of pure soybean: Soy material made strictly with processed soy protein is stretchy, breathable, and exceptionally lustrous. Its sturdiness is, but, particularly low, and dyeing pure soy cloth can every so often be complex.

Advantage of soybean fabric: Soy cloth has super absorption qualities which permit perspiration to evaporate. This makes it cool and secure during hot climate. Due to its moisture control soy textiles are also anti bacterial. Soy cloth will also shield you from the sun with its UV resistant traits.

Bamboo fabric : Antibacterial - maintains you odour free and feeling and smelling fresh highly sweat absorbent (pulls moisture from pores and skin for evaporation - moisture wicking) - maintains you dry Powerfully insulating - keeps you cooler in summer season and hotter in iciness one of the softest fabric in the world you'll love the manner it feels clearly UV protect - defend yourself from pores and skin most cancers Hypoallergenic - natural bamboo does now not cause allergies.

Most eco-friendly fabric on the planet: This beneficial quality of the plant stays in its textile form, killing all micro organism keeping the wearer feeling more energizing and odour loose for longer, making the garment more healthy and greater hygienic.

Bamboo cloth is likewise anti-static and UV shielding as it cuts out 98 in line with cent of dangerous UV rays supplying the wearer with any other useful quality from bamboo made apparel.

long-time period freshness

wonderfully tender

super warmness law

Hypoallergenic

safety towards UV Radiation

Crease-resistant without ironing

Sweat-resistant

Modal Fabric special Characteristics:

Its shrinkage fee is low and its desirable moisture absorption ability is 50 % better than that of cotton with extraordinarily speedy moisture absorption capability.

It has a high absorption fee and vibrant shades after dyeing with properly air permeability. The more washing times there are, the extra lovely it will likely be. Modal fiber is gentle and brilliant and feels specially easy. Its fineness is 1 dtex.

Nonwoven elastic: it is a more expandable & recovery product. In this elastic very soft, flexible and more comfortable. It is making for Arizona ultrasonic technology. And also biodegradable products.

Cotton Cotton fibres are extremely absorbent. cotton can entice approximately 0.3 gallons of water in line with pound of cotton, consistent with the EDRO business enterprise There will be any wide variety of motives you might be thinking if cotton is waterproof .it is totally you may have heard approximately specific situations in which cotton has verified itself to be water-resistant or waterproof.

METHODOLOGY

Material

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Finishing

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Testing

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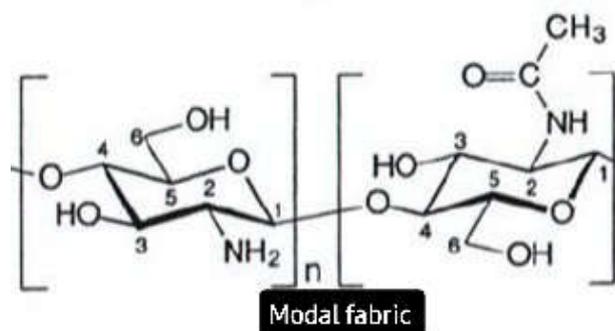
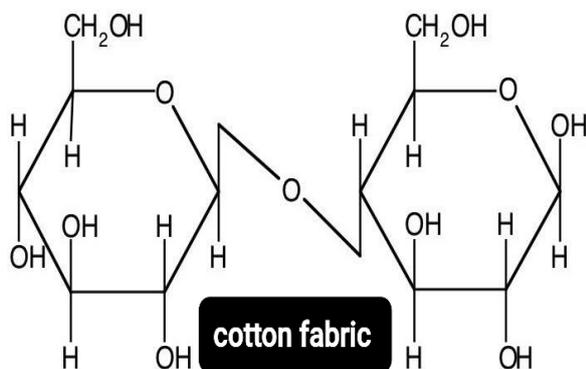
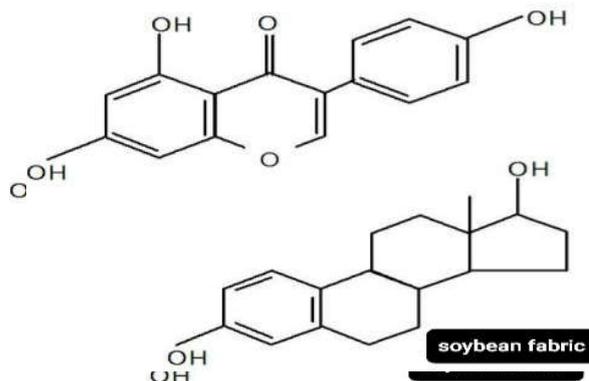
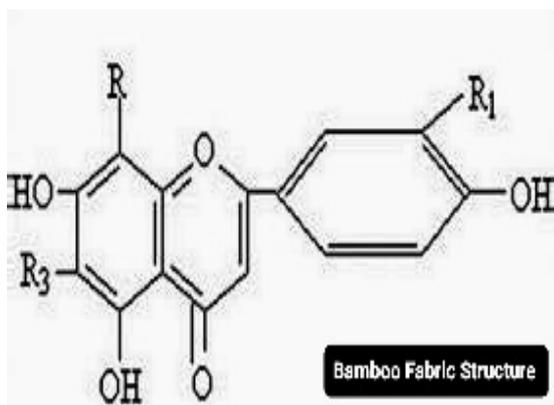
Garment

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Product

Materials: we are take absorbency natural fabrics like are Bamboo, Soybean, Modal and Cotton fabric. In this clothes are more hydrophobic in naturally molecular structure.

Molecular structure of clothes:



Water Repellent Finishing: We are take cotton woven fabric by used to water repellent finishing making for natural oils likewise soybean and terbentine oil.



TESTING:**Water repellent test:**

In this test water is sprayed on the stretched fabric sample from 150 +2 or -2 mm height under controlled conditions. A wetted pattern is produced whose size is dependent on the water repellency of the specimen. The wetted sample is compared by the standard spray ratings to evaluate the water repellency of it.

GARMENTS:**Required materials**

Water Resistant Fabric (Cotton& Bamboo),Elastic (Nonwoven material elastic), Absorbency cloth and wet dry cloth.

To make three layer adult diaper and different fabric liners are making. The liner making five layer and six layers. So, in this liner is more wet wicking properties is greater.

PRODUCTS

We are making adult diaper is a more comfortable, softness and absorbency is more not leaking in this maked a diaper.

RESULT AND DISCUSSION**Water repellent (Soybean oil and Terbentine oil)**

Materials	Absorbency	Water repellent
Cotton	30sec	78%
Bamboo	36sec	81%
Model	33sec	79%
Soybean	35sec	80%
Fleece	40sec	83.5

CONCLUSION

The improvement products have long time monetary blessings. The water repellent fabric a turned into great in performance whilst subjected to the fabric check. There have been private performance for some people but a few care givers recommended the effort in designing such a practical unique products and cheaper products to what became to be had in the marketplace. The products essentially gives a better and healthful opportunity to the each day washing of outer apparel through the care offers and helps less on the capacity viral transmission.

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