EVALUATION THE PERFORMANCE`S PROPERTIES FOR SOME CURTAINS FRINGE AND PASSEMENTERIE

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ABSTRACT

Strips of lace were introduced to the textile market since 1950s. Currently, the world consumption of Strips of lace exceeds one million kilograms. Today fabrics containing Strips of lace fibers found their way in many end uses such as apparel, curtain, upholstery, hosiery , underwear, outerwear, bags, shoes, medical textiles, and sportswear. The spread of the use of Strips of lace in textile structures is due to the inherent properties of such yarns that provide the end user with stretch, mechanical comfort, fit and esthetic in case of apparel and sports wear. the scientific research addressing the structure/property relationships of fabrics containing Strips of lace is limited and spotty. Academics and practitioners alike have suggested that color can stimulate interest and, subsequently, The current study examines the Strips of lace design elements impact of visible fashion color on sales of the Strips of lace products in the production department context through a quasi-experimental approach. Hypothesis tests suggest that greater depth and magnitude of fashion color increase products of lace design elements. the main goal of the research is to reveal the influence of the structure of woven fabrics with Strips of lace on their physical properties. and discussed the development Strips of lace structures. Calculation Stiffness of lace Strips, by the sag of a projecting strip of sample (Peterson and Skinkle method). The results show that the selected Passementerie and fringe strips of lace fabrics are suitable for usage as apparel , curtain , upholstery, hosiery, bags, shoes, etc.), and medical textiles. in this paper the value of Stiffness properties to provide dynamic values that takes account thickness and width of stripe by the weft materials. It therefore allows a more complete representation of the elects of Passementerie and fringe on the end use.

KEYWORDS: Curtains Fringe Passementerie Strips, lace, stiffness, apparel fashion , color.

1- INTRODUCTION

Over the past twenty years, global souring , multiple-channel retailing, the proliferation of mass merchandisers, and demanding consumers have contributed to the development of a dynamic and highly competitive Egypt. apparel market. In order to compete in today's market, retailers and strips of lace manufacturers are increasingly adopting new product strategies, including both new innovations as well as product line extensions to capture sales from discerning consumers. The manufacturing of braiding is considered as one of the largest industries in Mahalet Marhoum municipality during the last 150 years in spite of the severe condition of infrastructure. The wide diffusion for lace braiding flat woven structures has a very big share of the whole activity sectors in Mahalet Marhoum where more than 40% of the man power and 60 % of the population are working in the flat lace braiding woven structures wear production There are currently 350 factories with an average of one or more manual lace braiding machine (equipped locally with electric motor)150 with an average of one electronic lace braiding. plus a number of manual braiding and 20 with an average of two or more electronic lace braiding machines plus a number of machines these are generally characterized by family based Ownership .According to the technical survey that was covered by the consultant through visits to a group of 20 different scales of factories located in Mahalet Marhoum (Elnashar.E.A., 2003)[14].The reason behind the growing demand for Strips of lace in textile structures is due to the inherent properties of such yarns that provide the end user with stretch, mechanical comfort, fit and esthetic in case of apparel and sports wear. In the medical textile applications such fibers provide their fabrics with pressure, which can be designed at desired level, for wound healing and muscle and overstretched parts of human body to name a few. The price of Strips of lace is much higher than the price of commodity fabrics stripes(cotton, polyester, nylon, rayon, wool, etc.). Fortunately, the percentage of Strips of lace in a given product is usually very low. Despite the low percentage of Strips of lace in a fabric, the impact of Strips of lace, on the performance of the fabric is dramatic[1, 23]. Despite the steady growth of the use of Strips of lace in textile products and the dramatic impact of Strips of lace fibers on their fabrics, the scientific research addressing the structure/property relationships of fabrics containing Strips of lace is limited and spotty. First, the researchers will develop methods that will allow flat Strips of lace of woven structures & clothing designers to convert relevant dimensional data from existing anthropometric databases into flat Strips of lace of woven structures patterns, just as they would if they had gotten the data through measurements using traditional tailor methods. Second, the researchers will develop standardized measurement procedures for a set of key flat lace braiding woven structures garment dimensions. These procedures would then be used in future large-scale anthropometric surveys as well as by those preparing special measurement forms, so that appropriate dimensions will be available to designers without the need for conversion equations. When the ability to gather three-dimensional data from whole flat lace braiding of woven structures is in place, it will be possible to take anthropometric measurements from the body images, and those measurements can then be immediately used to convert anthropologist-style dimensions into tailor-style dimensions. This will be necessary because three-dimensional scanning will be done with the subject partially nude so the traditional tailoring landmarks and alteration points will be missing[14]. The design, production, and distribution of new products in apparel retailing currently occurs at much faster rates compared to a decade ago. Retailers such as The Limited, Inc. attribute their success to the ability to design, manufacture and deliver goods to the selling floor within a six-week time frame (Biederman, 2000.)[4]. A popular product strategy among apparel manufacturers and retailers is to inject fashion color into previously existing product lines. In many categories including active-wear, denim, and intimate apparel, designers use fashion color to add newness to an existing line and, in turn, attract consumers to the entire product line. Compared to a radical new innovation, the process of extending a product line through the addition of fashion color appears to be simple. However, the requirements of fashion apparel production including: longer lead times for production, procurement of new materials, coordination of color shading, production of samples, and execution of short production runs are comparatively riskier than those of core apparel production. Further, difficulty in forecasting sales for new apparel products poses additional problems in predicting demand compared to core products with clear selling histories(Urban, Weinberg & Hauser, 1996)[28]. Forecasting error can lead to expensive inventory carrying costs or stockouts at the retail level, which can erode profits as well as customer loyalty for the retailer(Clarke, 1987)[9].Although fashion color line extensions are a common strategy among apparel companies, we know very little about their impact on sales of the entire product line. Because this type of product extension can result in sizable profits when they succeed, or great costs when they fail, it is important to understand their role in marketing apparel. To date, no single study has investigated the role of fashion color line extension in the apparel context. The purpose of this study is to examine the effect of fashion color introduction on the sales performance of a basic color(i.e., core)apparel line. Specifically, the study investigates whether increased quantities of newly introduced fashion-color inventory will impact sales in an apparel line that is typically marketed for its performance rather than its style. The context selected for the study is the women's intimate apparel category in the department store retail channel. Through the use of a quasi-experimental design, this study provides an empirical investigation of the effect of fashion color on sales of apparel in the retail setting. Increased understanding of the impact of fashion color within the retail environment aids in informing future product line extension decisions among apparel manufacturing, marketing and retailing practitioners. Further, investigation of fashion color line-extension among a product line that is typically marketed for its performance attributes, contributes to our knowledge of target marketing in the apparel context. The practice of consumer firms using color to attract attention to new products, packaging , and retail space is widely noted in the trade literature(Cowan, 1993)[10]. there is currently no empirical evidence to uphold the claim that color actually influences the purchasing behavior of consumers specifically for apparel products. However, there is a related stream of research in the academic retailing literature that considers the influence of the store environment on consumer behavior. Borne out of environmental psychology, researchers such as Donovan and Rossiter (1982)[12]. , (Slama and Tashchain, 1987)[25].(, Buckley(1991), [6].(Rebecca H. and Nesdale, 1994)[20].have examined the impact of store environment stimuli on consumer emotions and purchasing behavior through operation of the Mehrabian- Russel Model. Based on the Stimulus Organism-Response framework, the model contends that environmental stimuli lead to emotional states(i.e, pleasure/displeasure, rousal/non-arousal(which in turn lead to approach/avoidance behaviors. However, the work of Bellizzi and Hite ،(١٩٩٢) [3]. have empirically linked in-store stimuli to emotions and behaviors including purchasing intent and actual behavior. Therefore, we hold that the stated research provides conceptual justification for investigating the effect of fashion color on shopping behavior within the retail environment. Based on this research. In addition to artists using fashion objects to embody their philosophical positions, designers themselves found their work consistent with art world ideas.(Thea, 1997)[26].noted that “influences throughout the century represent the many stages of fashion's coincidence with artistic, sociological, psychosexual, conceptual, or other prevailing concerns an example of this significant period was the 1960s when he defined Pop or Mod clothes(Cibulski, 2000)[8].The synthetic, manufactured quality of his fashion objects was consistent with the synthetic, manufactured quality of Pop Art. Perhaps the most common instance where art appears within the fashion system is when it serves as inspiration for clothing designs. Yves St. Laurent has created sequined versions of Van Gogh's irises, while Miucca Prada has placed lips from a Man Ray painting on skirts(Tromble, 2000).[27].new store in Los Angeles represents one of a growing few instances where art is installed in a fashion retail context. Morgan believed that art will slowly disappear by being accepted into fashion objects, advertising, and popular entertainment(Morgan, 2000)[18].It is interesting to consider whether the presence of methods of creation formulated by artists within the fashion system represents the death of these methods as viable art practice, or whether the fashion objects utilizing these methods share the substance of the artworks that are their progenitors. Therefore, a degree of internal control was traded-off for the external reality required for insight into the question of interest. However, to provide an acceptable degree of internal validity the following rules of quasi-experimental design were applied to the current research: selection of equivalent groups for testing, assignment of manipulation and controls among these groups, and testing for differences among these groups, (Kerlinger, 1992).[16]. Egyptian market leader in the branded manufacture of women's department store intimate apparel was selected to participate in the study. The company agreed to increase visible quantities of fashion color for lace Braiding merchandise within a featured product line for the upcoming spring selling seasons .

1-2 Classification:

Strips of lace is also generally nonlaminar, although, as with a 2D lace braid, nominally straight axial yarns may be introduced to improve the stiffness and strength in one direction. A simplified description of the unit cell geometry for a bias. More advanced process models attempt to predict the yarn cross section from the mechanical interactions between yarns as the textile is formed. One such model includes the twisting that must occur when yarns cross at non-orthogonal angle (Masters. J.E.and et al.1993).[17]. However, even advanced models assume relatively simple forms for cross sections.

1-2-1BRAIDING LACE LASSIFICATION.[21]

The following contain an illustrated outline of the classification system.

1-2-1-1 EMBROIDERED LACES

Embroidered laces are based on a woven fabric or other fabric construction. They first developed during the fifteenth century.

A. Cutwork: Holes cut in the fabric are the basis of the design; these may or may not be embellished with bars or other decoration depending on their size or the style of lace.

B. Pulled fabric and drawn thread work :

1-In pulled fabric work the threads of the (loosely woven)base fabric are left intact, but re-arranged by working various decorative stitches tightly over groups of threads to form openwork patterns; for example, Dresden work and other muslin embroideries.

2-In drawn thread work some threads of the base fabric are removed and the remaining threads re-arranged or decorated with switcher.(Earnshaw, Pat, 1988)[13]

C. Embroidered nets:

1) Embroidered handmade nets:

a. filet or lacis - the pattern is darned into a knotted square or diamond mesh, either

Within the mesh or around it.

b. buratto-the pattern is darned into a woven square meshed (leno weave) fabric

c. miscellaneous other embroidered hand made nets.

2) Embroidered machine made nets:

a. needle run and/or tamboured; for example, Limerick lace.

b. muslin appliqué;for example, Carrickmacross applique.

(Carrickmacross guipure is really a form of cutwork.)

c. machine made braids(or motifs) hand appliquéd to machine made net: for example, tape "Honiton, Brussels" princess".

These are probably borderline inclusions in the embroidered lace section, were it not for the fact that there is often Some additional embroidery of the net as part of the design and a not inconsiderable Amount of other handwork is involved in the attachment of the tape motifs to the net.

1-2-1-2- NEEDLE-MADE LACES

Needle-made laces are laces made entirely free of a base fabric. They developed at the end of the sixteenth century from techniques used in the embroidered laces, particularly cutwork and drawn work.

1.Buttonholed needle laces: These are the largest single group of needle laces and include punto in aria, Venetian gros point, and Venetian flat point, point de France, Alencon, Argentan, hollie point, etc.

2.Needle woven laces: That is laces woven over a basis of stretched radiating threads; for example, Teneriffe and other "sol" lace (probably a development of the early Spanish drawn work).Some knotting of threads occurs in these laces but the designs are mostly created with a darning stitch.

3.Knotted needle laces; for example, punto a groppo, bebilla, Armenian, etc. These can be very simple, or extremely elaborate, even three-dimensional, and there is some regional variation in the structure of the knot. Because of their structure these laces were originally grouped with the Knotted Laces

4.Needle laces with mixed techniques; for example Halas(Hungarian)lace in which the solid areas of the design are needle woven, as in simple darning, and the fillings buttonholed. Other combinations are also possible.[2].

1-2-1-3 BOBBIN LACES

Bobbin lace is woven over a pattern on a firm pillow, with threads wound on bobbins. It developed at the end of the fifteenth century, probably from one of the braidmaking techniques of the time.

1.Continuous or "straight" bobbin lace in which pattern and background are worked together.

1)Plaited and guipure laces; for example, the early‘pattern book’laces and their derivatives, Le Puy, Bedfordshire, Cluny, Maltese.

2)Bobbin laces with a mesh ground; for example, Valenciennes, Binche, Mechlin, ille, Buckinghamshire point, torchon.

Sectional or part lace

1)Motifs are made separately and joined later, with mesh or bars; for example, Brussels and Honiton bobbin laces.

2)Braid or trail lace is a continuous shaped bobbin tape joined back on itself as the work proceeds; for example, early Milanese, Russian braid, Idrija lace.

1-2-1-4MIXED LACESL:

From the sixteenth century many laces have been made which combine two or more techniques. These were very popular in the nineteenth century and continue today.

1.Bobbin plus needle; for example, Brussels duchesse, Brussels needle lace motifs appliqued on bobbin net, bobbin braid with needle fillings.

2.Bobbin plus machine: bobbin motifs appliquéd on machine net; for example, some 19th C Honiton and Brussels laces which replaced the more costly laces with hand made net.

3. Needle plus machine

1) Needle lace motifs on machine net; for example, some 19th C Brussels needle appliqué.

2) Machine woven braid motifs with needle made fillings and/or bars, known as tape or "point" lace; for example, Branscombe point.

4.Other mixed lace techniques include crochet with machine braids ("antimacassar" or "Gordon" braid)and crochet braid motifs with needle lace fillings (nowadays known as Romanian lace or macramé crochet).

1-2-1-5 KNOTTED LACES

1.Netted laces are knotted from a single thread wound on a netting shuttle, the mesh regulated by gauges of varying sizes.

2.Macramé lace is fine hand knotting of multiple threads, chiefly using clove hitches.

3.Tatted lace is knotted from one or more threads, wound on and manipulated with small boat-shaped shuttles. The basic knot is similar to that of macramé.

1-2-1-6 KNITTED LACES

Knitted lace is constructed from a single thread manipulated to form a looped openwork fabric–a development from functional knitting, which was probably practiced as early as the 12th century.

1.Hand-knitted lace (and any other hand-knitted fabric) is made by manipulating the thread with the aid of two or more knitting needles.

2.Hand controlled machine knitted lace ('hand flat knitting')is individually designed for one-off production. While the fabric produced is often indistinguishable from hand-knitting, it also allows for technical innovations which are unavailable to the hand-knitter.

3.Mechanically controlled machine knitted lace is designed for mass-production, and does not necessarily involve a single thread source.

1-2-1-7CROCHETED LACES:

Crocheted lace is constructed from a single thread, looped by means of a hook. It is thought to have developed early in the nineteenth century, from a denser kind of looped fabric used earlier for items of clothing.

1. Simple lace crochet
2. Filet crochet
3. Relief or Irish crochet
4. Hairpin crochet in which strips of openwork braid is crocheted around a u-shaped gauge, and later crocheted together to make the completed item.

1-2-1-8 WOVEN LACES:

There are no woven laces in the Lace Study Centre and few in the collection.

1. Hand-loomed 2. Power-loomed

1-2-1-9 MACHINE-MADE LACES

Each category of machine-made lace is related to a particular kind of machinery.

1. Laces with a looped construction are made on descendants of the warp knitting frame.
2. Laces with a twist construction are made on the Leavers and related machines.
3. Machine embroidered laces may be automatically embroidered and mass produced on the Schiffli and related machines,

1-2-1-10MISCELLANEOUS CONTEMPORARY LACES

Textile processes not covered in other categories may produce fabrics with the form of lace, according to the given definition, for the decoration of dress and household furnishings.

1-3CLASSIFICATION THE BRAID:

1- Rectangular Braid

2- Circular lace Braid

3- Square lace Braid

1-3-1 Rectangular lace Braid:

The three-dimensional rectangular braiding process known as the 4-step process uses a track and column method to develop solid net shaped fabrics. The 3-D rectangular braid is created by the displacement of yarn carriers on a rectangular loom to form the final braiding geometry. The 4-step lace braiding equipment consists of tracks with slots where bobbins and yarn carriers sit. These tracks are used to create columns and the sequential motion of yarn carriers in horizontal and vertical movements followed by compaction (beat-up motion) to the desired lace braid angle accomplish the yarn integration. The person braiding solely determines the strength of the 3-D rectangular braid in the longitudinal and transverse directions. An example of a loomed Rectangular braider and the novel 3-D rectangular Strips of lace scaffolds.

1-3-2Circular lace Braid:

In the photograph presented in the 3-D circular (tubular) lace braider and novel samples developed for cell studies are shown. The braiding process consists of axial yarns that are fed from braiding yarn carriers on a track plate, a forming plate and a take up mechanism(used to keep tension).The braiding yarns are fed from bobbins mounted on carriers that move on the track plate. The yarns pass over and under several sets in the wall thickness direction. The motion of the carriers to each other and the incorporation of any axial yarns construct the braid needed to establish microstructure. For circular braids an even number of yarns is required to construct a balanced torque free braid. The 3-D circular braid gains its longitudinal strength when axial yarns are added to the machine and the lace braiding yarn determines the transverse strength.

1-3-3Square lace Braid:

The three-dimensional rectangular braiding process was adapted to develop a novel square braided structure using the same 4-step process that uses a track and column method. An example of compaction of the square braids and the finished scaffold used for in vivo studies.

1-4 HANDLING AND FABRIC ABILITY

The main handling advantage of textiles is that they are manufactured as dry fiber performs that hold together when they leave the textile machinery without any polymer or other matrix. The textile perform can be shipped, stored, draped (within limits that depend on the kind of fabric), and pressed into shaped molds. the finished product can be formed in the mold by resin transfer molding, reaction injection molding, or the melting of commingled thermoplastic fibers, which are all cost competitive processes. Separate performs can easily be joined by co-curing if joints of moderate strength suffice; or by stitching if joints must be very strong. The handling advantages of textiles are so considerable that even when the finished product is intended to be a 2D laminated structure, for example a laminate of unweave plies, with no special demand for the excellent delimitation resistance of textiles, there is still a case for preferring textile fabrics over tape laminates. But textiles allow designers to step beyond conventional laminate concepts. For example, with conventional tape layup, a laminar skin is stiffened against buckling by nonintegral ribs, which must be attached in a separate process. The use of textile performs and processes such as allows the manufacture of integral parts to net shape. Thus the skin and stiffeners can be manufactured as one piece.Net shape manufacture of integral structures provides considerable potential cost savings over tape layup, because forming complex shapes via layup is difficult and integral structures eliminate joining steps. The structure/property relationships shall provide woven fabric designers with tools for developing woven fabrics containing spandex with desired properties.(Seyam, A. M., and El-Shiekh, A., 1994).[21], [22],

1-5 THE 2D WEAVES LACE BRAIDS

The ultimate tensile strengths of woven graphite/epoxy laminates and equivalent tape laminates. The data represent 5-harness satin weave fabric manufactured with 3k yarns of and consolidated with two resin systems. The woven laminates had a fiber volume fraction approximately10%lower than in the tape laminates and a higher areal weight, and were accordingly 12-17% thicker. The ratio of the fabric strength to the tape laminate strength appears in parenthesis above each pair of bars. The unnotched strength of the textiles .The systems of microcracks are often complex, (Karayaka. M. and P. Kurath, 1995)[15]. Linked to irregularities in geometry, and difficult to correlate with estimates of local stresses. The interlacing of tows inhibits plastic tow straightening.

usually occurs first in the bias rovings, where the dominant stress is shear, Dadkhah and et al (1995)[11]. The main objective of the proposed research is to reveal the influence of the structure parameters (filling yarn fiber type and weave)of woven fabrics with Strips of lace constituents on their mechanical and physical properties(bending, thickness).Additional objective of this research include (a) Establish the relationship between fabric tightness and each of the properties mentioned above and(b)review the current end uses of fabrics containing Strips of lace and a critical review on the subject including potential end uses of fabrics. assess the present situation of the Mahalet Marhoum lace braiding for upholstery, certain and garment manufacturing enterprises in order to prepare a program out line to improve the prevailing situation. And to establish both a suitable working definition of current high fashion and a suitable resource for the observation of current high fashions.

2.Experimental Materials and Method

Experiments are carried out on four groups of fabrics structure. The Strips of lace woven fabrics samples are The fabrics designed formation technique and produced on the Comez weaving machine in Mahalet Marhoum, Tanta, Egypt and(Sabra factory), and The fabrics tested in faculty of specific education, Tanta university, and faculty of engineering Elmansura university, According to A.S.T.M, standard, warp of Fabrics(100% polyester) were constructed with variations in weft and width of stripes construction types and yarn size. Yarn of warp sizes were 20 Tex of polyester, and weft wear (60 Tex of cotton, 40 Tex of polypropylene, 60 Tex of Syrma(metallic), 60 Tex of Jut, The stripes of lace woven fabrics are being fully characterized for those properties that may relate to comfort when used for apparel and upholstery, Correlations with structure variables will be determined. Initial testing includes esthetical studies and thickness measures. Tests that are nondestructive and that do not alter the fabrics are being conducted first.

2.1. MECHAINC OF LACE BRAIDING:

Comez Machines in Sabra factory, Mahalet Marhoum, Tanta, Egypt. See the fig.(1)it is a world leader in "crochet machine" and "Needle loom" technology, which are used to make a wide range of laces and bands for underwear, ribbons for clothing, technical textiles, passementerie, fancy yarn and fabrics for outerwear. The wide range of Comez machines includes: Crochet knitting machines, both mechanical and electronic; Weaving needle looms, mechanical, electronic and jacquard; Electronic double need bed warp knitting machines; Accessory machinery: wrappers, machines for the production of cords and covered yarns, etc; and software programs, with electronically driven pattern guide bars, for the production of an extremely wide range of articles for outerwear(scarves, shawls, fashion fabrics for knitwear), sportswear(ribbons applied to fabrics as a binding), underwear and corsetry articles (elastic ribbon, bar-straps), for technical uses (netting for sports equipment and the food industry, high resistance ribbons special fibers, ribbons and fabrics for applications in the geo-textile, automotive, building and industrial sectors), for medical uses (tubular elastic netting, emergency bandages and dressing), footwear(three-dimensional fabrics for uppers). Comes in gauge 20 npi, features a 800mm working width, and is equipped with 8 electronically driven pattern guide bars .

Fig. (1) Comez Machine

2.2. Evaluation the properties

Weight per Unit Area: Testing, Sampling, marking out, cutting, accuracy of weight and moisture content must be all considered. After cutting by a standard template, the 30 samples with the three models of stripe lace of woven fabrics structure with several weft(cotton, polyester, polypropylene, Syrma(metallic). Have been weight according to the standard atmosphere according to ASTM standard. With aid of an electronic balance, with accuracy 0.001g the mean values of weight have been obtained for each of the lace stripes of woven fabrics where considered as moisture fabric.

2.2.1. Evaluation the Thickness:

the Passementerie and fringe woven fabrics thickness as a prime factor in determining the level of effective stiffness properties such as bending, The measurement of thickness of Strips of lace fabrics has been carried out according to the A.S.T.M standard. By using Shirley Thickness Gauge, For the determination of the thickness of a compressible material such Passementerie woven fabrics, it is essentially that the test consists of precise measurement of the values showed that the Strips of lace fabrics thickness of Passementerie and fringe .

2.2.2. Evaluation the Stiffness:

Flexibility or the stiffness of fabric may be measured in several ways(Skinle. John. H., 1949)[24]:

1-by the thickness of a folded of sample (MackNicholas and Hedrich method)

2-by the sag of a projecting strip of sample (Peterson and Dantzig method, Skinkle method, Peirce method)

3-by the length of a heart-loop(Peirce method)

4-by means of a Flexometer (Schiefer method)

5-by the moment of rotation (Saxl method)

6-by means of a Planoflex (Dreby or A.S.T.M. method)

7-by means of a Drape-Meter(Schwarz or A.A.T.C.C. method)

Booth.J.E.(1968)[5]In his described of the Stiffness testing the second method By Shirley Stiffness Tester, Serial No, 45468, in faculty of Engineering Elmansura university, According to A.S.T.M, standards, The measurement of Stiffness of lace Strips. A rectangular stripe of fabrics, 6 in. X 1 in., is mounted on a horizontal platform in such a way that it overhangs, like a cantilever, and bends downwards, the length L and the angleǾ a number of values are determined. Bending length, C. this is the length is length of fabric that will bend under its own weight to a definite extend. It is measure of the stiffness that determines draping quality. The calculation is as following[5]: $C = Lf_{1(\theta)}$ (1). Where

$$f_1(\theta) = \left(\frac{\cos \frac{1}{2} ø}{8 \tan ø} \right)^{\frac{1}{2}} \qquad (2)$$

the labour of calculating the function of Ǿ is avoided by consulting a prepared Table 1.

$$C = L \left(\frac{\cos \frac{a}{2}}{8 \tan a} \right)^{\frac{1}{3}} \qquad (3)$$

when C= bending length, L= length of the overhanging fabric, a the angle B` BC(the singe on the tester) when a is 45^{o} , the relationship becomes C=0.00154L , Peirce suggests that the resistance to bending which is felt by the fingers is due to the flexural rigidity which may be calculated:

$$G = W C^{3} \qquad (4)$$

when:G=flexural rigidity, W= weight per unit area of the fabric. To compare the stiffness of materials different thicknesses, the bending modulus may be calculated:

$$Q = \frac{KG}{d^{3}} \qquad (5)$$

When Q=bending modulus, d=thickness, K=a constant. [24].

3. Results and Discussions

Several goals were established for statistical analysis of the data. The first is to determine a generic equation, which would be capable of explaining the data. The second is to determine whether the synthetic membrane can be used to predict transport of pesticide from contaminated fabric through thickness. A third goal is to test the effect of fabric and finishing had on the pesticide penetration rate using the general linear model. In samples were then removed and passed through a laboratory experiments and calculation, with 30 samples properties, and evaluation methods of fabrics containing Strips of lace will be written. To achieve this goal.

Fig.(2)show the Curtains Fringe and Passementerie Strips with width(40)mm from A1 to A 14 in table 1

Fig. 2

Fig.(3)illustrating the seal rings with width(18)mm B1 to B10. in table 1.

Fig. 3

Fig.(4)illustrating the Soso with sliver with width(6)mm C1 to C3. in table 1.

Fig. 4

Fig.(5, D)illustrating the Flowers with width(10)mm D1.and(E)show the Velvet strip with width(20) mm E1. in table 1.

Fig. 5

Fig.(6)illustrating the Cloth for shoes And Built for woman with width (47) mm. as F1 in table 1.

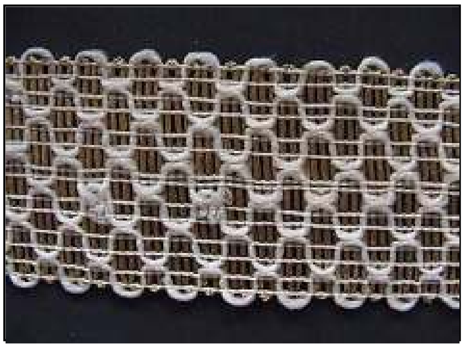

Fig. 6

Fig.2, 3, 4, 5.6 and table(1) illustrating the properties of structures and using a Pantone color library is provided with passementerie strips of lace design.

A selection of special functions and tools allow the user to accelerate the coloring process by avoiding commonly repeated procedures. As this passementerie and fringe strips of lace design has been developed under the current hight fashion environment, the user must be familiar with Comez Machines as "crochet machine" and "Needle loom" technology, which concepts and functions. the designs generated by the application may be directly integrated into the Info Design Presentation passementerie strips of lace design.

3.1. Calculation Stiffness of lace Strips

we calculating the Stiffness of lace Strips by the second methods, with equation number(4).For Skinhle. John. H.(1949)[24]. Then we obtained the value of G, and, W. in table(1). so to organize data into a worksheet, select the data columns to graph, and select graph types and styles. and also to modify graph properties.

3.2.Result analyses:

the following in table(1)and graphs(1-12)including the of lace Strips properties as, Stiffness, weight, thickness, length, colors.

Table (1): Result of laboratory experiments and Pantone textile Number

Types of stripe	Color of name ands number in PANTONE system		Warp N	Physical properties				
	Background	anaglyph		Thickness /mm	Stuffiness			Wight/ Gram (W)
					L	C	G	
Curtains Fringe Strips (heavy Passementerie) with width (40) mm								
A1	Crystal Blue (13-4411 CVT)	Biscuit (16-1336 CVT)	9	4.1	2.3	0.003542	0.010985463	65.0
A2	Cream (12-0817 CVT)	Black Ink (19-0506 CVT)	9	4.3	2.2	0.003388	0.00686	56.11
A3	Cream (12-0817 CVT)	Pink Flambe (18-2133 CVT)	9	3.4	1.8	0.002772	0.00390	53.83
A4	Biscuit (16-1336 CVT)	Pink Flambe (18-2133 CVT)	9	4.6	1.75	0.002695	0.00439	60.77
A5	Golden Poppy 16-1462 CVT)	Rose Violet (17-2624 CVT)	9	4.1	1.7	0.002618	0.00333	57.04
A6	Cream (12-0817 CVT)	Peridot (17-0336 CVT) + Doe (16-1333 CVT)	9	4.4	2.1	0.00324	0.00582	55.54
A7	Golf Green (18-5642 CVT)	Golden Poppy 16-1462 CVT)	9	3.4	2.4	0.003696	0.00682	51.33
A8	Cream (12-0817 CVT)	Green Tint (13-6106 CVT)	9	3.8	1.95	0.003003	0.00431	54.25
A9	Green Tint (13-6106 CVT)	Biscuit (16-1336 CVT)	9	4.1	2.0	0.00308	0.00515	56.08
A10	Bird Of Paradise (16-1357 CVT)	Golden Poppy 16-1462 CVT)	9	3.9	1.9	0.002926	0.00389	53.75
A11	Biscuit (16-1336 CVT)	Golden Poppy 16-1462 CVT)	9	5.2	2.4	0.003696	٠,٠٠٥٥٤	60.5
A12	Biscuit (16-1336 CVT)	Bird Of Paradise (16-1357 CVT)	9	4.5	2.7	0.004158	0.01373917	57.6
A13	Golden Poppy 16-1462 CVT)	Biscuit (16-1336 CVT)	9	4.3	1.25	0.001925	0.001371	57.72
A14	Golden Poppy 16-1462 CVT)	Biscuit (16-1336 CVT)	9	3.3	2.15	0.003311	0.00501	51.7
seal rings(light Passementerie) with width (18) mm								
B1	Bright Gold (16-0947 CVT)	White Swan (12-0000 CVT)	4	2.2	1.85	0.002849	0.0000086	7.21
B2	Pastel Green (13-0116 CVT)	White Swan (12-0000 CVT)	4	2.7	2.1	0.003234	0.0000077	6.11
B3	Chinese Red (18-1663 CVT)	White Swan (12-0000 CVT)	4	2.6	1.75	0.002695	0.0000041	5.97
B4	Tobacco Brown (17-1327 CVT)	White Swan (12-0000 CVT)	4	2.8	1.8	0.002772	0.0000107	7.97
B5	Flax (13-0935 CVT)	White Swan (12-0000 CVT)	4	3.2	1.2	0.001848	0.0000049	9.29
B6	Honey Yellow (16-1143 CVT)	White Swan (12-0000 CVT)	4	2.8	1.55	0.002387	0.0000126	9.78
B7	White Swan (12-0000 CVT)	White Swan (12-0000 CVT)	4	2.7	1.4	0.002156	0.0000013	5.07
B8	Deep Red Brown (19-1321 CVT)	White Swan (12-0000 CVT)	4	2.7	1.5	0.00231	0.0000017	5.24
B9	Pastel Yellow (11-0616 CVT)	White Swan (12-0000 CVT)	4	2.9	1.8	0.002772	0.0000114	8.13
B10	Ivory Cream (13-1011 CVT)	White Swan (12-0000 CVT)	4	3.2	0.85	0.001309	0.0000014	8.7
Soso with sliver (light P Passementerie) with width (6) mm								
C1	Deep Red Brown (19-1321 CVT)	Silver Sage (17-0510 CVT)	2	1.9	1.9	0.002926	0.0000005	2.87
C2	(Light Gray) 12-0404 CVT	Silver Sage (17-0510 CVT)	2	1.9	1.8	0.002772	0.0000003	2.59
C3	Black Ink (19-0506 CVT)	Silver Sage (17-0510 CVT)	2	1.9	1.6	0.002464	0.0000003	2.73

Flowers (light Passementerie) with width (10) mm								
D1	Biscuit (16-1336 CVT)+ Blue Nights(19-4023 CVT)		2	1.5	1.55	0.002387	0.0000004	3.32
Velvet strip with width (20) mm								
E1	Black Ink (19-0506 VT)	Antique White (11-0105 CVT)	4	2.0	2.0	0.00308	0.00004446	6.2
Cloth for shoes And Built for woman with width (47) mm								
F1	Golden Yellow (15-0953 CVT)	White Swan (12-0000 CVT)	14	1.6	1.8	0.002772	0.00000696	12.78

Fig.(7) This behavior indicates that the filling spaces in between fiber-to-fiber and yarn-to-yarn in the fabric, construction is increasing by floated the warp and filling up. Obviously,the specific stuffiness is significantly influenced by the thickness content as weight and thickness. When weight raise up the raise up too, Then the weight and thickness

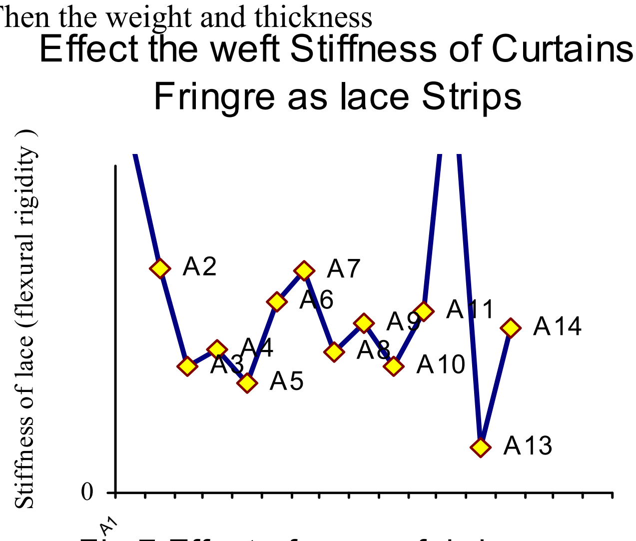

Fig.7 Effect of woven fabrics on Thickness

Fig.(8) illustrating the relationship between Stiffness of Curtains Fringe and Passementerie Strips for apparel(seal rings) the woven fabric construction and the specific materials with Stiffness at the two woven fabrics construction.

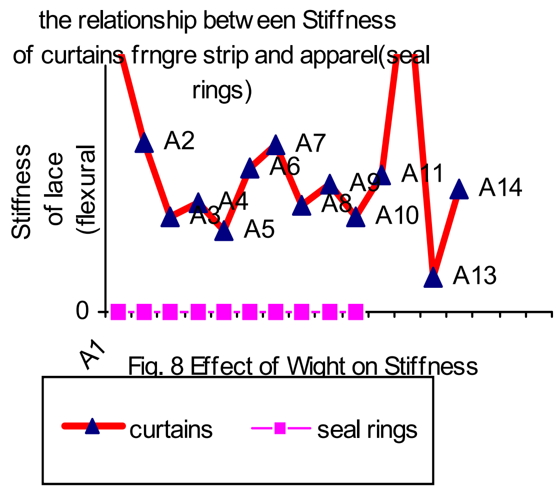

Fig. 8 Effect of Wight on Stiffness

Fig.(9) illustrating the relationship between the Effect the various wefts Stiffness of seal rings lace Strips of woven fabric construction and the specific materials with thickness and Stiffness.

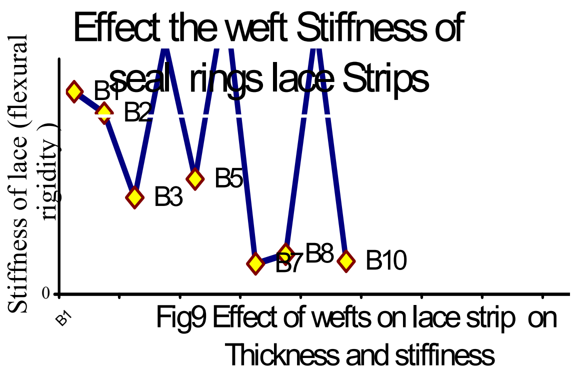

Fig9 Effect of wefts on lace strip on Thickness and stiffness

Fig.(10) illustrating the relationship between Effect the weft weights of seal rings lace thickness of Strips and stiffness. When weight raise up the raise up too. Then the weight and thickness are the direct proportionality of stiffness, so the seal rings lace more suitable for apparels with varies colors.

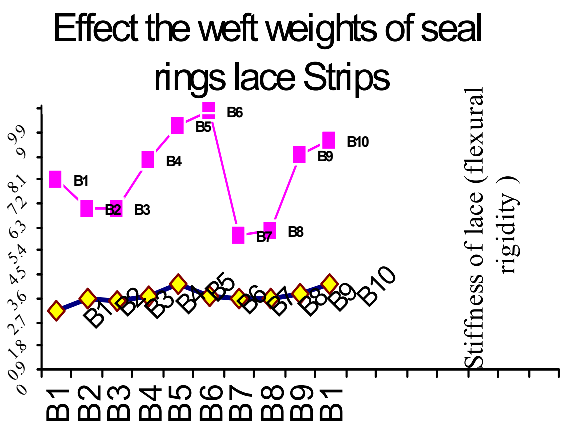

Fig10 Effect of wefts on lace strip on Thickness and weight

Fig.(11) illustrating the stuffiness of Curtains Fringe(heavy weight Passementerie with width(40)mm,the average G=flexural rigidity(0.00604)it is more stuffiness,the seal rings(light Passementerie with width(8)mm the average G=flexural rigidity(0.00000644) stuffiness is less than curtain, it can be use in apparel, the Soso with sliver(light Passementerie) with width(6)mm, the average G=flexural rigidity (0.000000366)there is no stuffiness it more useful in Appeal, Flowers(light passementerie) with width(10)mm, the average G=flexural rigidity 0.0000004,it is more proverbial popular in height current apparel fashion for women. Velvet strip with width(20)mm, the average G=flexural rigidity,0.00004446,. Cloth for shoes And Built for woman with width(47)mm, the average G=flexural rigidity 0.00000696.

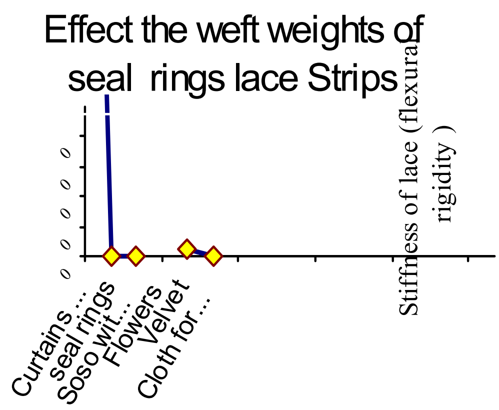

Fig11 Effect of wefts on lace strip on Thickness and weight

Fig.(12)illustrating effect the different structure of lace on weights and thickness as average lace Strips, the relationship between effect the weft and structure of lace weights of curtains finger,its more heavy and thickness,than the others, Then the weight and thickness are the direct proportionality of stiffness,so the seal rings lace more suitable for apparels with varies colors. And Flowers(light passementerie)with,the best average G=flexural rigidity 0.0000004,and more light weight than others,it`s more proverbial popular in height current apparel fashion for women.

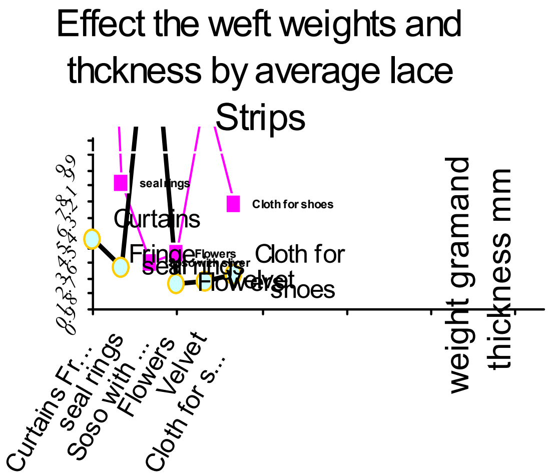

Fig12 Effect of wefts on lace strip on Thickness and weight

4. Conclusions

First: Our results indicated that greater depth of visible fashion color contribute to the profitability of a Curtains Fringe and Passementerie Strips of Lace in apparel product line in the international department store fashion. the results suggest some important implications for researchers, apparel producers and marketers. And emphasis on using international colors code systems as(Pantone textile), Therefore,it would be helpful to examine the direct impact of color on consumer stimulation in a controlled environment, so the international trade,greater understanding of this phenomenon could help us to understand the degree to which different factors(e.g.,color،and promotions)affect approach and avoidance behaviors in high load environments. Further,it would be useful to examine how different stimuli affect purchasing behavior,fashion color for apparel and Curtains Fringe and Passementerie Strips of Lace occurs on a regular basis, season after season. Marketers, designers and manufacturers have to make routine color decisions for their product lines.

Scound: the stuffiness of Curtains Fringe the average G=flexural rigidity(0.00604)it is more stuffiness, than other so its more useful for durability , the seal rings(light Passementerie with have average G=flexural rigidity(0.00000644) stuffiness is less than curtain, it can be use in apparel, curtain, upholstery, hosiery, the Soso with sliver(light Passementerie). the average G=flexural rigidity (0.000000366)there is no stuffiness it more useful in Appeal, Flowers(light passementerie)the average G=flexural rigidity 0.0000004,it is more proverbial popular in height current apparel fashion for women. And it s more useful for line emphasis the union the design elements of the woman's apparels . Velvet strip with width(20)mm, the average G=flexural rigidity,0.00004446,. Cloth for shoes And Built for woman, the average G=flexural rigidity 0.00000696 its more useful for this branch.

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تقدير خواص الأداء الوظيفى لبعض فرنشات الستائر وأشرطة المفروشات

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الملخص:

ظهرت أشرطة اللاسيه فى أسواق المنسوجات منذ عام 1950م .وحاليا الإستهلاك العالمى لأشرطة اللاسيه يتجاوز مليون كيلو جرام،فاليوم أنسجة أشرطة اللاسيه تَحوي بَأليافِها الموجودة بعديد الطرق للإستعمال النهائى مثل الملابس، الستائر، التنجيد، الجوارب، الملابس الداخلية،الملابس الخارجية، الحقائب، الأحذية، الأقمشة الطبية، أقمشة الرياضة. بإنتشار إستعمالِ أشرطة اللاسيه في تراكيبِ المنسوجات لذا يوجب حساب الخصائص الفيزيقية الملازمةِ، مثل التزود بخيوط مطاطة للإستعمال النهائى. وميكانيكية الراحة، بصورة ملائمة وجمالية فى حالة الملابس وملابس الرياضة. وموضوعات البحث العلمي فى التّركيب والخصائص وعلاقتها بأشرطة اللاسيه تكون محدودة ومتفاوتة. الأكاديميون والمهنيون على قدم المساواة قَدْ اقترحوا تلك الألوان المستخدمة والتى يُمكنُ أَنْ تُحفّزَ الإهتمام على الاقتناء بالشراء والانتاج ،تكمن الدراسة الحالية لإختبار أشرطة اللاسيه بعناصرِ التصميمِ وتأثيرها فى ألوان الموضة المرئية على بيع أشرطة اللاسيه بمنتجاتها بأقسامِ الإنتاجِ خلال اختبارات تجريبيةِ للوصول الى إختبار الفروض المقترحة. بذلك العمق والمقدار لتعظيم ألوان الموضة يَزِيدانِ الإنتاج عن المنتجات بعناصرِ تصميمِ أشرطة اللاسيه. إنّ الهدفَ الرّئيسيَ للبحثِ أَنْ يَكْشفَ تأثير

تركيبِ الأنسجةِ بأشرطة اللاسيه على خصائصها الفيزيائية. ويناقشَ تَطَوّرَ تراكيبِ أشرطة اللاسيه . وحساب الصلابة لأشرطةِ اللاسيه، بإنسدال أو تدلى عينة من الشريط (Peterson and Skinkle method). إنّ النَّتائِجَ تُوضحُ أن العينات المختارة من الأشرطة والفرنشات اللاسيه مناسبة للاستعمال كملابس ،مثل الملابس، الستائر، التنجيد، ،الحقائب،الأحذية، الأقمشة الطبية، أقمشة الرياضة، والمنسوجات الطبية .. الخ

في هذا البحث قيمةِ خاصية الصلابة تُزوّدَ بقِيَم ديناميكية التي تأخذ فى الحسبان السمك والعرض للأشرطة بخامات اللحمة المختلفة.هي إذن تسَمحَ بتمثيل متكامل للمختارين لفرنشات الستائر و أشرطة المفروشات والملابس للإستعمالِ النّهائى.

الكلمات الدليلية: أشرطة فرنشات الستائر ،اللاسيه، الصلابة ،موضة الأزياء، الألوان.