

## International Institute For Cotton Technical Research Division

**Research Record No: 122** 

**Projects Kl And K2** 

## The Operations Of Dyeing And Finishing In The Tubular State

A report of the processing carried out at Meridian Dyers during the period April - June 1980

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## Introduction

Towards the end of 1978, a number of project proposals were submitted to the Tropical Products Institute, a branch of the Overseas Development Administration of the UK Government. Amongst these proposals was a project in which a full investigation of the major aspects of the knitting, dyeing, and finishing of single jersey fabrics would be carried out.

The main objectives can be summarised as follows.

- to investigate the interactions of yarn count and stitch length on the properties of single jersey fabrics;
- to investigate the effect of variations in the dyeing and mercerising processes on the properties of single jersey fabrics.

The project as such was split into two interrelated projects, designated Kl and K2 with the following specific objectives.

### Project Kl

- 1. To develop a systematic and comprehensive data base relating manufacturing and processing parameters to final specifications and performance of single jersey fabric.
- 2. To discover the range of qualities in which single yarns can be successfully used for single jersey.
- 3. To quantify the effects of the yarn/stitch length interaction and certain finishing procedures upon spirality of single jersey.
- 4. To develop recommendations for production specifications and quality control procedures which can be used by developing country industries when producing single jersey fabrics for western markets.

### Project K2

- 1. To discover and quantify the changes in fabric specifications and performance which are caused by using different types of dyeing and mercerising processes.
- 2. To quantify the economic costs and benefits of the mercerising process.

The production of the several hundred pieces of knitted fabric is detailed in Research Record No. 114 (Appendix W of the report to the TPI Steering Group, May 1980).

The finishing plan calls for processing to be carried out by both tubular and open-width routes and therefore, a number of industrial co-operators were recruited for this purpose, as follows.

Meridian Limited,	PO Box 54, Haydn Road, Nottingham NG5 1DH, UK	For the tubular processing
Strines Printing Co.	Strines, Stockport Cheshire SK12 3AQ, UK	For the open-width processing
Joh. Mich. Engel KG	Günnerbacherweg 1-3, 7880 Bad Sackingen, Germany	For the open-width mercerising
Tintoria Giuseppe Tosi	Via San G. Bosco 10 21052 Busto Arsizio, Italy	For the tubular mercerising

This report describes the tubular dyeing and finishing operations carried out at Meridian Dyers

Limited during the months of April - June 1980.

## Fabric Coding

With almost four hundred knitting and finishing variables within Kl and K2, a simple and easily understandable fabric marking system was required. The knitting department devised a code which not only gives information about fabric construction, but also about the finishing route followed. Several examples will serve to illustrate this marking system.

Code	Decode
18/1-16/344/1	18g knitting machine 1/16 Ne yarn count 3.44 mm stitch length processing route #1
28/2-72/301/5	28g knitting machine 2/72 Ne yarn count 3.01 mm stitch length processing route #5

The processing route variants will be described in greater detail later in the report.

## **Outline Of Trials**

During a previous study of the yarn count/stitch length interaction on the properties of interlock and 1x1 rib fabrics it became apparently clear that variations in processing conditions, especially the use of different types of dyeing machine, also had a considerable effect on fabric properties.

In this present project where, again, the yarn count/stitch length interaction is being quantified this additional effect due to dyeing method must be standardised for all of the fabric constructional variants. In other words, where we are only interested in comparing the effect of yarn count and stitch length on the properties of the finished fabric, the dyeing and finishing of all the fabric variants must be carried out in an identical manner.

The Kl project is also designed to study the effect of construction on final fabric properties, finished both in tubular and in open-width form.

Two complete sets of fabric were therefore knitted covering the whole range of yarn count/stitch length combinations, which were of possible commercial and technical interest. One set for tubular finishing and the other set for open-width finishing.

In the fabric coding system already described, the complete set of fabrics to be finished by the tubular route at Meridian Dyers are designated LOT 1.

e.g. gauge/yarn count/stitch length/1

Where the effect of using a different dyeing machine on final fabric properties is being investigated (K2 project), the fabrics are designated LOTS 3, 4 and 5.

## **Processing Route**

### 4.1 Dyeing Machines

In preliminary discussions with members of the Meridian technical staff, the various possible processing routes were discussed in some detail. In particular, the choice of dyeing machine in which all of the LOT 1 fabrics would be dyed. Meridian have a number of different jet dyeing machines, some perhaps being more suitable than others. For the K1 fabrics it was agreed that the Thies R-Jet 95 (*Figure 1*) should be used.

Although many millions of metres of cotton fabric have been dyed in this machine, it is not now considered to be the best machine for dyeing cotton hose, due to its relatively "rough" action which results in somewhat hairy fabrics. Some of the newer machines have gentler or softer actions which it is claimed generally overcome this problem.

However, this machine was chosen for the following reasons.

- it was used in the previous investigation of interlock and 1 x 1 rib fabrics;
- it is a very common machine, particularly in Europe;
- the somewhat newer designs of machine which are claimed to be softer in action could be compared with it.

For K2 processing, the dyeing machines which were selected as being of particular interest were the Scholl Subtilo (*Figure 2*) and the Thies Rotostream (*Figure 3*).

An additional dye batch was planned for processing in a winch, since some considerable differences in the fully relaxed structure of 1x1 rib and interlock were observed between the winch and the Thies R-Jet 95 during the evaluation of the Central Project 78 data.

### 4.2. Dyestuff Selection

In terms of selection of dyestuff, it was decided that throughout the whole of the Kl and K2 projects the dyestuff to be used should be standardised.

Procion Blue H-EG (ICI) was selected for the following reasons.

- it gives a rather attractive shade;
- it is relatively cheap;
- Meridian have considerable experience of its use and have modified the recommended procedure to suit their particular conditions.

The level of shade required was standardised as 2% Procion Blue H-EG on weight of fabric.

Prior to dyeing, the fabric was to be given a mild hydrogen peroxide bleach, using the following recipe.

2.5 g/l 7°Tw NaoH

1.0 g/l Viscavin CA stabiliser (Tubingen)

8.0 g/l 130 vol. H<sub>2</sub>0<sub>2</sub>

### 4.3. Softening

Softening was carried out after dyeing in the dyeing vessel, using a combination of:

Alcamine 544 (Allied Colloids), and

Bradsyn PC12 (Hickson and Welch)

which are both cationic softeners and lubricants.

Full details of the processing are given later in the report.

### 4.4. Hydroextraction and Drying

By far the most common method of hydroextracting fabrics after dyeing is the use of the centrifuge. However, fine gauge single jersey fabrics in particular are rather prone to creasing during centrifuging and, sometimes, these creases are still apparent on the fully finished fabrics.

An alternative method of removing excess water is to use a mangle extractor such as the Calator Airtex (*Figure 4*). Meridian have two of these machines and one of them had been used for the stage 2 processing of the Central Project 78 fabrics (*Research Record No. 94*).

There has been a lot of discussion recently about the use of "wet stretching" as a means of reducing residual length shrinkage of tubular finished fabrics. This technique consists of stretching the wet fabric in the width direction by as much as 30% over the finished width and overfeeding in length direction. The fabric is then dried under low tension conditions on a machine such as the Tubetex Superrelax dryer, or similar, and the fabric width allowed to relax to approximately the required finished width. It is claimed that this technique can give fabrics with relatively low residual length shrinkage figures without having to resort to mechanical compactors which are currently out of favour.

Some work has been done at Meridian in this area using the Calator Airtex to wet stretch the fabric.

During initial planning discussions it was suggested that the Kl project fabrics should be processed by the wet-stretch route. However, it very soon became apparent that some of the more slacker fabrics in the series had a proposed finished width of about 100 centimetres. To wet stretch these would have meant a width of 130 cm from the Airtex and this is impossible since the machine has a width limitation of about 100 cm.

Since only a limited number of the fabrics in the series could be finished in this way, it was decided that wet stretching evaluation should be a separate exercise. It was therefore decided that the fabrics should be simply dewatered on the Airtex and that drying would be carried out on the Pegg drying and finishing machine (*Figure 5*). Following drying, the fabrics would be dressed to width on the Heliot Plimatic calender (*Figure 6*).

## TARGETS

In an exercise such as this, where many of the fabrics are not in regular commercial production, little is known of their behaviour during processing and no specifications exist which the finisher can use to help him set up his finishing machinery to handle such fabrics.

All that can be done therefore is to attempt to finish the fabrics to a predetermined width which should take into account the fact that knitted structures are generally expected to have a certain amount of elasticity in the width direction.

To arrive at this target width figure it is necessary to know the fully-relaxed dimensions of a particular fabric construction.

From the grey-state test data it is possible to obtain the fully-relaxed wale spacings for all of the fabric variants. Knowing this figure, and also knowing the number of needles on the knitting machine on which the fabric was produced, it is a simple mathematical division to determine the fully-relaxed width of any of the knitted variants.

For single jersey fabrics, it was considered that, after finishing, the width should be such that the fabric would have a residual shrinkage value in width direction of 10-12% when tested by the IIC method (*Appendix 1*).

However, experience obtained during the Central Project 78 exercise has taught us that if the target widths are calculated on the basis of the grey-state fully relaxed wale spacings, then the residual width shrinkage values tend to be too low. This is due to the fact that the fully-relaxed wale spacing after dyeing is different from the grey-state fully-relaxed wale spacing (difference varies with processing route).

At the time when the target width figures have to be determined however (when assembling dye lots) the only data available relate to the grey-state fully-relaxed structure and, therefore, the targets have to be calculated on the basis of these data. To allow for the differences between grey-state and dyed-state structures, the 10-12% residual width shrinkage target is increased to 15% based on the grey fully-relaxed width.

The calculation to determine the target width of each variant is therefore as follows.

Tubular fully-relaxed width, cm = Number of Needles / 2 x Relaxed Wales/cm Fully-relaxed width = Target finished width x 0.85 Target width = Fully-relaxed width / 0.85 Target width = Fully-relaxed width x 1.17 (+17%)

## **Dye Lot Assembly**

Target finished widths were calculated for each piece of fabric and these were listed in increasing order together with the individual weights of each piece. For ease of processing, where fabrics of differing width are involved, the fabrics must be assembled in a particular order so that machine adjustments can be made in a systematic manner.

For the Thies R-95 jet dyeing machine, three equal-length ropes are required with a total weight of 240-280 Kg.

These ropes were assembled from the previously-prepared list using Weiss unrolling and plaiting machines. With the weight limitation being the main determining factor, some dye loads consisted of 3 x 6 = 18 pieces, and some of 3 x 7 = 21 pieces.

At the beginning/end of each rope a small length of polyester fabric was sewn in so that the dyer would know the point at which he should break the rope after the dyeing cycle, ensuring that the fabrics were removed from the machine in precise width order. Each rope was also to be kept separate when unloading the machine.

In the case of the K2 project, different dyeing vessels were used, namely:

- LOT 3: Scholl Subtilo;
- LOT 4: Thies Rotostream;
- LOT 5: Winch.

Both the Subtilo and the Rotostream are two-tube machines and therefore the dye lots had to be assembled accordingly: two ropes of 10 pieces each.

*Note:* The overall length of fabric in a rope consisting of 10 pieces is 750 metres. This is too much for the Rotostream and therefore, each piece in turn had to be reduced from 75 metres to 60 metres.

In the case of the winch batch, the fabrics were simply plaited off into wagons in precise order so that easy winch loading was facilitated.

During the knitting operation, a cutting line had been introduced into all of the fabrics to aid slitting in the case of the open-width treatments, and as a reference for controlling spiralling in

the case of tubular finishing.

During preparation of the dye lots, extreme care was taken to ensure that the cutting lines were aligned during the sewing operation.

### **Processing Details**

The complete dyeing and finishing operation for projects Kl and K2 at Meridian involved eight individual dyeing batches, 5 for Kl and 3 for K2. These were carried out at a frequency of 1 per week and IIC personnel were present throughout the finishing operations, to monitor various parameters such as width and course spacings and also to make on-site decisions regarding machine settings.

It is intended for the purpose of this report to describe one such dyeing and finishing cycle. Individual dye cycle (batch) particulars together with in-process measurements are to be found in *Appendix 2*.

The fabric was loaded into the jet in the grey state and, prior to the dyeing operation, was given a mild peroxide bleach, details of which are given on the individual processing sheets. The dyeing operation followed a procedure which has been developed at Meridian for this particular dyestuff, in which the salt is added in three equal portions over an extended period (130 minutes) following dyestuff addition, and part of the soda ash has been replaced by bicarbonate of soda. The speed of fabric circulation was adjusted so that the rope was cycled once every 22 minutes (approx. 250 metres/minute). The liquor to goods ratio was approximately 7:1.

Following dyeing, the fabric was back-scoured and finally softened with cationic softeners. The total time in the jet machine from bleaching to final softening was approximately 7 hours.

When unloading the machine, the individual ropes were broken at the point where a polyester leader had been placed. This was easily located due to the fact that the polyester resists the reactive dyestuff. Each rope was removed into a separate wagon ready for hydroextraction. The fabric was de-twisted and hydroextracted on the Calator Airtex. The width of the driven expander on this machine is preset by placing two spacer bars between the longitudinal end-pieces which carry the fabric transport bands.

The spacer bars are in three-centimetre increments over most of the width range, but occasional spacers were not available which meant that an adjustment of six centimetres was necessary in some instances. The frame width was adjusted so that the individual variants were at a width which was 3-5 centimetres below the target finished width. In most instances, this was achieved with most of the fabrics in a jet load with only three or four changes of spacer bar.

Following the dyeing cycle, the fabric ropes were very badly twisted and the Airtex operator had some difficulty in guiding the fabric so that the cutting line was always at the edge of the expander. Where the cutting line was not kept to the edge, creases put in by the Airtex nip tend to be permanent and show once the fabric is straightened on the dryer and calender.

As the fabric was plaited into wagons, the width and course spacings were measured and are recorded on the process sheets in the *Appendix*.

Drying was carried out on a Pegg drying and finishing machine which has been slightly modified from the standard machine. These modifications are to the calender roller at the top of the drying zone. The rollers are usually of smooth metal and are under pressure to form a nip. The modifications consist of a covering of textured rubber on the calender rollers and a reduction in the nip pressure to an extent that the nip pressure is minimal and just sufficient to allow fabric transport up the drying zone. The modifications have been made to reduce glazing and also to reduce the severity of the edge crease, particularly on single jersey fabrics.

The trial fabrics were dried to a width which was one centimetre below the proposed target finished widths. This operation was carried out with some degree of accuracy since width adjustments can be carried out continuously due to spring-tensioned expanders being used.

The fabric was guided onto the drying frame by hand to ensure that the cutting/ reference line was always on the edge of the fabric tube. This was carried out in some degree of discomfort as the air emerging from the fabric tube is at a temperature of 150°C. Guiding was carried out throughout the three hour drying time in relays of about 10 minutes. Overfeed was set at maximum, consistent with crease-free running.

After the folder, fabric width and course spacings were measured and these are recorded on the process sheets in the *Appendix*.

Calendering was commenced on the Heliot calender equipped with Plimatic folding device. This machine has two frames for adjusting fabric width.

The main stretcher frame prior to the calender rollers is normally adjustable from outside the fabric tube by means of a pneumatic device. During the duration of these trials, the pneumatic jack was away for repair, and therefore a normal, manually-adjusted stretcher frame was used.

A small secondary stretcher housed in the plaiting mechanism is used to give precision folding.

The first dye batch (Lot 1, Batch 1) was calendered on this machine, but all subsequent dye lots were calendered on the older Heliot H67 calender with reciprocating folder. The reasons for this are as follows.

- The Heliot Plimatic calender is difficult for the operator to run when a batch of fabric of differing widths is being processed two frames have to be adjusted to obtain correct fabric width.
- Variation in fabric width was being experienced within a single piece. (It was later discovered that a fault in the calender bowl closing mechanism was placing variable back-tension on the fabric).

Fabrics were calendered with light steaming and the stretcher was adjusted so that the fabrics plaited at target finished width.

Following calendering, the fabrics were taken to the sampling room and representative samples of 5-metre and 1-metre lengths were removed from the middle of each piece for testing and reference respectively. At the sampling point, width and course spacings were measured and are recorded on the process sheets in the *Appendix*.

Unless otherwise stated on the process sheets all of the dye batches were processed in this manner with the following exceptions.

- K2, Lot 4: the dyer thought the shade was a little too thin and made a dyestuff addition contrary to instruction.
- The winch-dyed fabrics had to be removed from the winch in precise width order and had to be sewn together following Airtex plaiting.
- K2, Lot 3: this dye lot was originally destined for processing in the Thies Rotostream. The fabric was in fact loaded into the Rotostream, but during the first 30 minutes of processing it was realised that the ropes were too long for this machine causing jamming, and consequently the batch was reloaded into the Scholl Subtilo and the processing cycle continued.

The dye lot destined for the SCHOLL machine was reduced in length and switched to the Rotostream as Lot 4.

It was considered that the short length of time that Lot 3 spent in the Rotostream would have no bearing on the final outcome when compared with an overall processing cycle of some 7 hours.

## **Concluding Remarks**

The processing described in this report was largely carried out to plan, and with only a few minor problems. Where problems have arisen, these have been reported either in the main text or on the individual batch processing records.

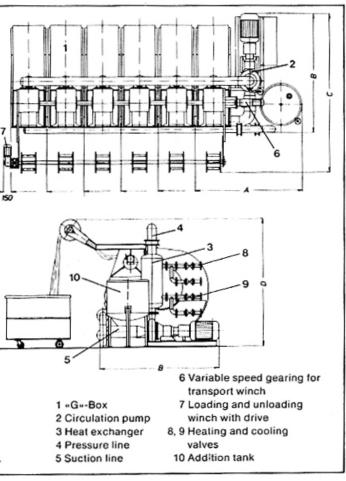
The success of the operation was due in no small measure to the excellent co-operation extended to IIC personnel by management and operatives at Meridian.

FIG 1

With its energy-saving short liquor ratios (5:1 to 8:1), the piece dyeing machine R-jet 95 is the ideal replacement for the uneconomical winch.

Offering high output and high speed fabric transport, it is suitable for dyeing woven and knitted fabrics of natural and synthetic fibres and their blends.

Design features: Available with 1—6 tubes of nominal capacity 100 or 130 kg. Standard model consists of: tube with internal transport winch; speed adjustable to 400 m/min; circulation pump with connecting lines and heat exchanger with common heating and cooling system; addition tank; loading and unloading device; control system with heating and cooling valve; choice of degree of automation; seam detector; sampling device; filter.

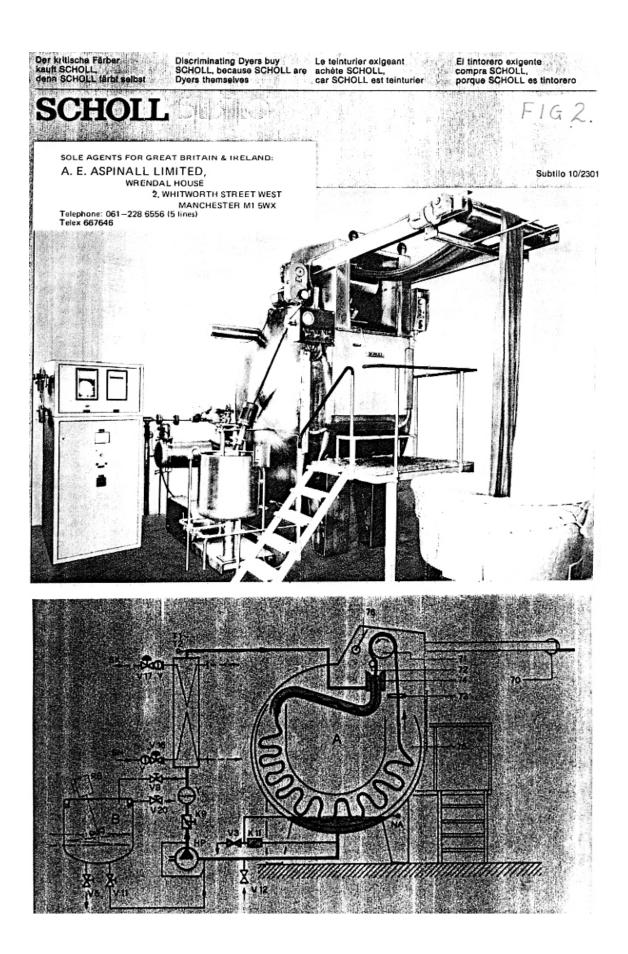


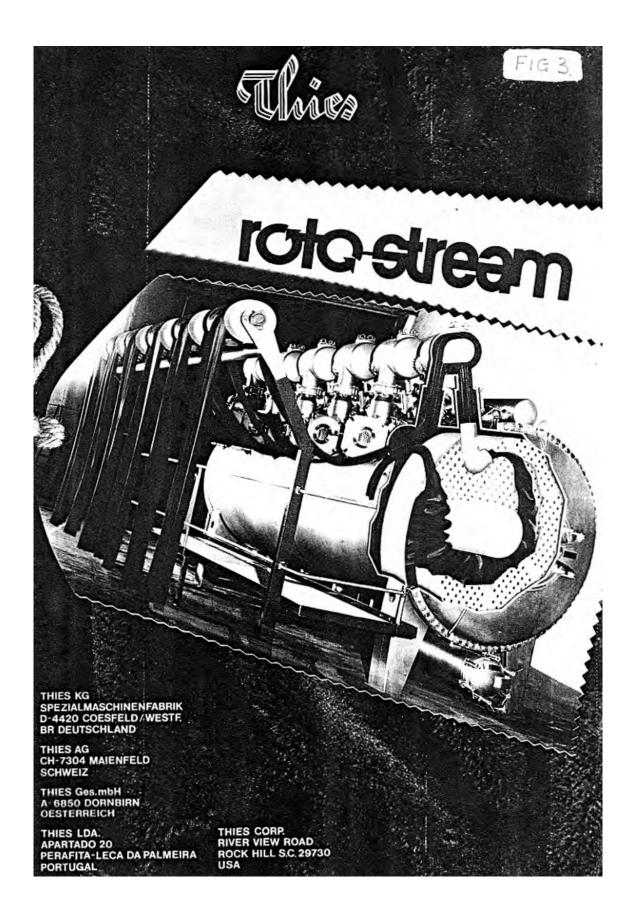
Dimensions:

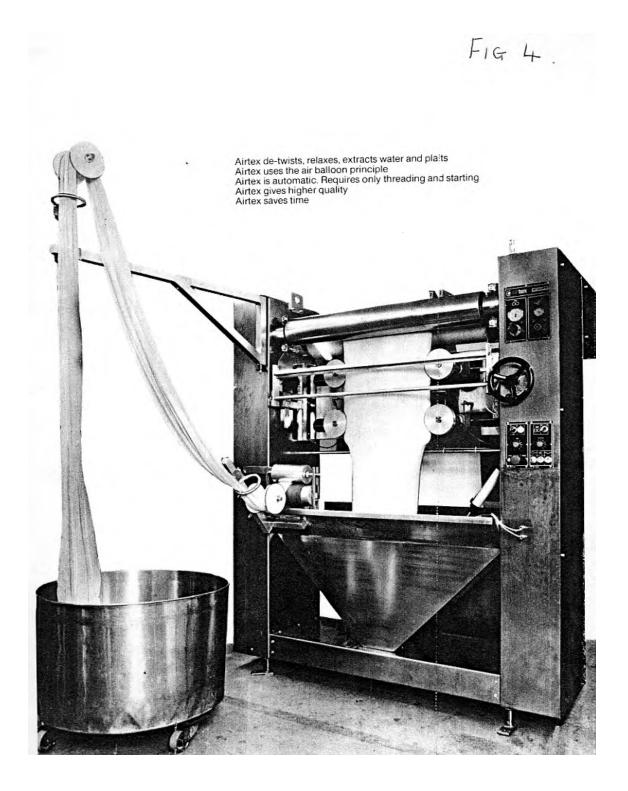
Туре	95/100 95/130	95/200 95/260	95/300 95/390	95/400 95/520	95/500 95/650	95/600 95/780
A	2100	2820	3550	4675	5400	6125
В	2300	2300	2300	2300	2900	2900
100 kg 130 kg C	2050 2550	2050 2550	2050 2550	2050 2550	2100 2600	2100 2600
D	2450	2450	2450	2450	2450	2450

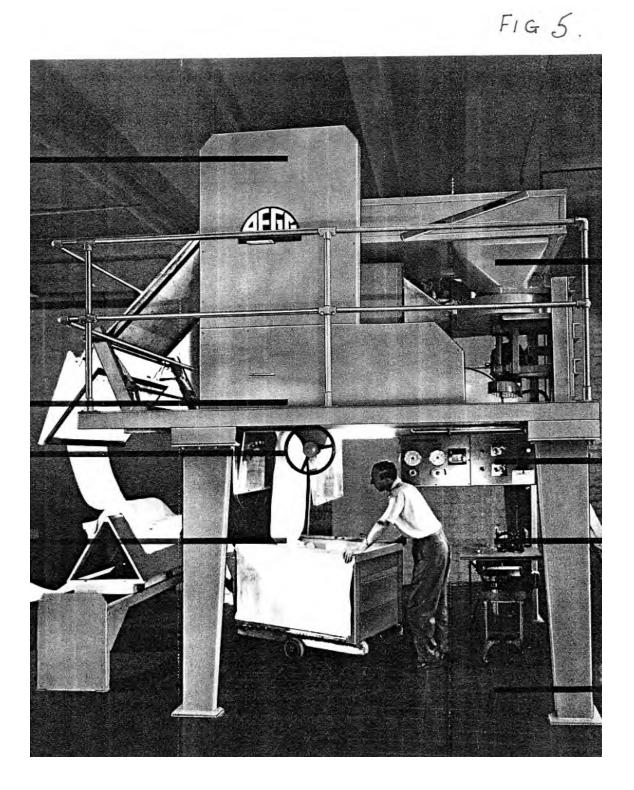
Technical specification:

Models	95/100 95/130	95/200 95/260	95/300 95/390	95/400 95/520	95/500 95/650	95/600 95/780
Actual liquor capacity, I	500/650	1000/1300	1500/1950	2000/2600	2500/3250	3000/3900
Liquor ratio	5:1	5:1	5:1	5:1	5:1	5:1
Addition tank — capacity in I	300	300	300	500	500	500
Circulation pump motor - 1500 rpm in kW/HP Rated	11/15	15/20	22/30	30/40	37/50	45/60
Drive winch motor in kW - HP Rated		1.5/2			2.2/3	
Unloading winch motor in kW/HP Rated			0.55	0.75		





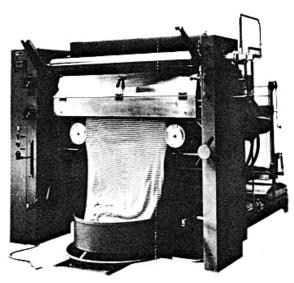


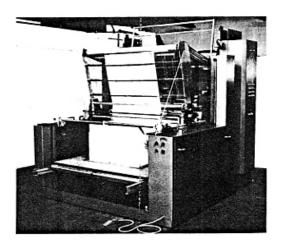


# FIG 6.

# H 67 calender

USEFUL WIDTH OF 1 M - 1,50 M - 2 M H 67 WITH ROLLING H 67 WITH FOLDING AND ROLLING H 67 WITH DECATIZING, FOLDING AND ROLLING





## PLUS PLIMATIC FOLDING

PRECISION HIGH PRODUCTION EASY HANDLING OPTIONAL AUTOMATIC EVACUATION SPEED : UP TO 40 M/MN

## AND **PNEUMATIC STRETCHER**

AUTOMATIC ADJUSTMENT IN WIDTH BY MEANS OF PNEUMATIC JACK CONTROLLED FROM OUTSIDE THE FABRIC

GENERAL SALE AGENT : LA CONTINENTALE TEXTILE sarl B.P. 22 F - 10600 La Chapelle St Luc Tél. : (25) 43.30.96 - Telex 840701 For other agents in the world contact La Continentale Textile

Sole agent for UK & Eire : Muschamp Knitting Machinery Ltd Bank House - 536 Valley Road Basford - Nottingham NG 5 IJJ Tél. : 0602 71064/5/6



#### **Appendix 1**

### **International Institute For Cotton**

#### **Method Of Test**

### KT1B

### Determination Of The Dimensional Changes Induced In Cotton Weft Knitted Fabrics By A Specified Relaxation Procedure.

May 1978

### Principle

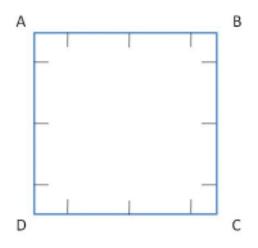
A fabric is subjected to a specified procedure and dried under the appropriate conditions, and any changes in dimensions are determined.

Method 2: By washing and tumble drying followed by soaking and tumble drying.

### Apparatus

- 1. Hoover automatic De-Luxe washing machine.
- 2. Hoover tumble dryer.
- 3. Two Perspex templates a) 25 x 25 cm and b) 50 x 50 cm, both having equidistantly located measuring marks on all sides (*Figure 1*).

#### Figure 1



NB: Markings on AD are opposite those on BC (width measurement) and the markings on AB are opposite those on DC (length measurement).

- 4. Ruler and indelible pen.
- 5. A domestic automatic washing powder.
- 6. Lissapol NX or equivalent wetting agent.
- 7. Means for providing the standard atmosphere for testing textiles specified in B.S. 1051, namely 65  $\pm 2\%$  RH and 20  $\pm 2^{\circ}$ C.

### **Test Procedure**

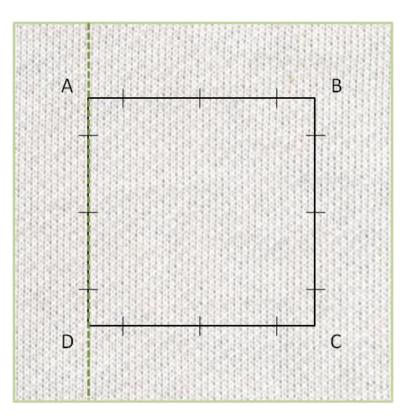
### Conditioning

Samples are allowed to condition until they have reached equilibrium in the standard atmosphere for testing textiles (minimum 4 hours).

### **Specimen Preparation**

- 1. The sample is laid on a flat surface removing wrinkles without stretching.
- 2. Five test specimens are prepared for each conditioned fabric sample, a minimum of 20cm larger in both directions than the required size of template, e.g. the 25 x 25 cm template requires a specimen of at least 45 x 45 cm.
- 3. The required size of template is placed centrally on the specimen so that one edge follows a wale line.
- 4. The test area is defined by drawing round the template. The three measuring marks are then drawn on each side of the square ABCD (*Figure 2*).





### Laundering

- 1. Recommended loading for absorbent materials in a Hoover De-Luxe washing machine is 2.75 kilos (6 1b).
- 2. The specimens are weighed and placed in the machine. Where necessary, the load is made up to 6 lb.

- 3. The prescribed amount of washing powder is placed in the dispenser and the machine set to wash at 60°C with a long spin.
- 4. On completion of the wash cycle, the load is tumble dried at the highest temperature setting, establishing the required drying time.
- 5. After the first wash-and-tumble-dry cycle has been completed, the specimens are soaked in cold water with a few drops of Lissapol NX for 10 min, hydroextracted and then tumble dried for the same time as was established in 4.
- 6. The soaking and tumble drying is repeated a further three times, making a total of five cycles.
- 7. After the fifth tumble drying cycle the test specimens are conditioned before measuring.

### Measurement

The specimens are laid on a flat surface, removing wrinkles without stretching.

The distances between the pairs of marks are measured and recorded.

## **Calculation Of Results**

The mean changes in dimensions in both length and width directions are calculated and expressed as percentages of the original mean length and width respectively. The 95% Confidence Limits and the % Accuracy are also calculated.

An extension is indicated by the prefix Ext.

References

B.S. 1051

## Appendix 2 Processing Details

Lot 1, Batch 1 Lot 1, Batch 2 Lot 1, Batch 3 Lot 1, Batch 4 Lot 1, Batch 4 Lot 1, Batch 5 Lot 3, Scholl Subtilo Lot 4, Thies Rotostream Lot 5, Winch

LOT No.	1/B1								DATE.	14/4/	80
No. Piece	1 10				FAI	BRIC SING	ak ?	JERSEY	SPEC	No.	
WIDTH	VAR	bus	(566	ovee		MS			SPEC I	No.	
1.14 9.10 1829		1	1-1-		1.4.1.1						
Weight	266	<u>س</u>	-								
SHADE	2%		PROCI	20	BLUE	H-EC	÷.				
PREPARA	ATION		and the f		* TH	ES R-	95	SPEC	IAL INSTR	UCTIONS	
*		LEISS			-		-				
		LLIOO		They a		•		MER	DIAN -	IN1 ERI	VA F!(
SCOLLE					/				ISTITUT	E FOR CO	DITO
BLEACH		2	OFTE	2	100	/			SOMUT P		
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DYE	V P	ADD	YE L	200	A	RTEX N	າ-ສຸ∣				
		le 12	1.03					0			
DRY ON	1. 网络中国小田							Vo	od	150	-
PEGG	N'a S	TRAI	GHTEN		SLIT			NU	nang	No	
									$\cup$	U	
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001.0						'C		ľ	wia	my	\
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FINISH O	N	0.81			1990						
	and the second sec	PLIHA		.71	FLAT F						
TUBET	and the second sec			-	FLAI F	JLD					
HUNT	E. 1903 964 MER	RBAC	н								
MOSCE				1				011011	TY CHECK	Ń	
Weight	Size	Pce	Weight		38/276	SHADE		PASS		ή	
	10/1-0-12			120/1-		UNADE					
13.6 29	18/1-24/311	16				FASTN	ESS	PAC	5 6	$\downarrow \rightarrow $	
13.9 3	18/2-48/311	17	10.0	128/1	40/259	FASTN	ESS	PAS	s f		
	18/1-24/311 18/2-48/311 18/1-24/827 19/2-40/327			128/1		FASTN Piece	ESS cpi	PAS	S 6	Kn.m/c	Dia.
13.9 3	18/2-48/311 18/1-24/827 18/2-40/327 18/2-48/327	17 18	10.0	128/1	40/259			PAS	S H	Kn.m/c	Dia.
13.9 13.2 17.3	18/2-48/311 18/1-24/827 19/2-40/827	17 18 19 20 21	10.0	128/1	40/259			PAS	S D	Kn.m/c	Dia.
13.9 13.2 17.3 14.3	18/2-48/311 18/1-24/327 19/2-46/327 19/2-46/327 19/1-24/344 18/1-20/327	17 18 19 20 21 22	10.0	128/1	40/259			P AS wpi	S H	Kn.m/c	Dia.
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5	18/2-48/311 18/1-24/327 19/2-48/327 19/2-48/327 19/1-24/344 18/1-20/227 28/1-40/246	17 18 19 20 21 22 23	10.0	128/1	40/259			PA5 wpi	S 6	Kn.m/c	Dia.
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 12.3	18/2-48/311 18/1-24/327 19/2-40/327 19/2-40/327 19/1-24/344 18/1-20/327 28/1-40/246 18/1-24/246	17 18 19 20 21 22 23 24	10.0	128/1	40/259	Piece	срі	7 AS wpi	S D	Kn.m/c	Dia.
13.9 13.2 17.3 14.3 13.4 17.5 10.5 10.5 12.3 15.0	18/2-48/311 18/1-24/327 18/2-48/327 18/2-48/327 18/1-24/344 18/1-20/227 28/1-40/246 18/1-24/344 18/1-24/344	17 18 19 20 21 22 23 24 25	10.0	128/1	40/259		срі	2 AS wpi	S D	Kn.m/c	Dia.
13.9 13.2 17.3 14.3 13.4 17.5 10.5 10.5 12.3 15.0 11.6	18/2-48/311 18/1-24/327 18/2-48/327 18/2-48/327 18/1-24/344 18/1-20/227 28/1-40/246 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344	17 18 19 20 21 22 23 24 25 26	10.0	128/1	40/259	Piece	срі	PAS wpi	S D	Kn.m/c	Dia.
13.9 13.2 17.3 14.3 13.4 17.5 10.5 12.3 15.0 11.6 13.2	18/2-48/311 18/1-24/327 18/2-48/327 18/2-48/327 18/1-24/344 18/1-20/227 28/1-40/246 18/1-24/342 18/2-40/344 18/1-24/362 18/2-40/344	17 18 19 20 21 22 23 24 25 26 27	10.0	128/1	40/259	Piece	срі	PAS wpi	S D	Kn.m/c	Dia.
13.9 J 13.2 17.3 14.3 13.4 17.6 10.5 12.3 16.0 11.6 13.2 16.6	18/2-48/311 18/1-24/327 18/2-48/327 18/2-48/327 18/1-24/344 18/1-20/227 28/1-40/246 18/1-24/362 18/2-40/246 18/1-24/362 18/2-40/244 18/1-24/362 18/2-48/244 18/1-24/244	17 18 19 20 21 22 23 24 25 26 27 28	10.0	128/1	40/259	Piece	срі	PAS wpi	S 6	Kn.m/c	Dia.
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 12.3 15.0 11.6 13.2 14.6 13.2 14.6 13.2 14.6 24.1	18/2-48/311 18/1-24/227 18/2-48/327 18/2-48/327 18/2-48/327 18/1-24/344 18/1-26/246 18/1-24/362 18/2-40/246 18/1-24/362 18/2-40/244 18/1-20/244 18/1-20/244	17 18 19 20 21 22 23 24 25 26 27 28 29	10.0	128/1	40/259	Piece	срі	PAS wpi	S Width	Kn.m/c	Dia.
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 12.3 15.0 11.6 13.2 14.6 13.2 14.6 24.1 24.1	18/2-48/311 18/1-24/227 19/2-49/227 19/2-48/327 19/1-24/344 18/1-20/227 28/1-40/246 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344 18/1-26/24 18/1-26/244 18/1-26/24 18	17 18 19 20 21 22 23 24 25 26 27 28	10.0	128/1	40/259	Piece	TESTS				×
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 12.3 15.0 11.6 13.2 14.6 13.2 14.6 24.1 24.1	18/2-48/311 18/1-24/227 19/2-49/227 19/2-48/327 19/1-24/344 18/1-20/227 28/1-40/246 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344 18/1-26/24 18/1-26/244 18/1-26/24 18	17 18 19 20 21 22 23 24 25 26 27 28 29 30	10.0	24/1	+o/259 -32/276/4	OTHER	TESTS				×
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 12.3 15.0 11.6 13.2 14.6 13.2 14.6 24.1 24.1	18/2-48/311 18/1-24/227 19/2-46/227 19/1-24/227 19/1-24/227 28/1-20/227 28/1-20/227 28/1-20/227 28/1-20/224 18/1-20/244 18/1-20/244 18/1-20/244 18/1-20/244 18/1-20/244 18/1-20/244	17 18 19 20 21 22 23 24 25 26 27 28 29 30	10.0 12.7 PL N <sup>±</sup>	24/1	1-6	OTHER	TESTS				×
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 12.3 15.0 11.6 13.2 14.6 13.2 14.6 24.1 24.1	18/2-48/311 18/1-24/227 19/2-49/227 19/2-48/327 19/1-24/344 18/1-20/227 28/1-40/246 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344 18/1-24/344 18/1-26/24 18/1-26/244 18/1-26/24 18	17 18 19 20 21 22 23 24 25 26 27 28 29 30	10.0	24/1	+o/259 -32/276/4	OTHER	TESTS				×
13.9 J 13.2 17.3 14.3 13.4 17.5 10.5 13.4 15.0 11.6 13.2 16.0 11.6 13.2 14.1 24.1 24.1	18/2-48/311 18/1-24/227 19/2-46/227 19/1-24/227 19/1-24/227 28/1-20/227 28/1-20/227 28/1-20/227 28/1-20/224 18/1-20/244 18/1-20/244 18/1-20/244 18/1-20/244 18/1-20/244 18/1-20/244	17 18 19 20 21 22 23 24 25 26 27 28 29 30	10.0 12.7 PL N <sup>±</sup>	24/1	1-6	OTHER	TESTS		S Ho Width		*

DYECARD BLUE. 14.4.80 D.TE CUSTOMER/LOT NO: JJC. 1/BI 55. THIES MACHINE NO: 9 METRES: MICHINE CAPACITY: LITRES WEIGHT: 266 K. NO. OF PIECES: 1818 TRIAL. D.Z BLEACH. 12 SCOUR. 2к. VISCAVIN CA K. LYOCL HEB ST\_BILIST SODA ASH. Kar HK. CAUSTIC LIQ. K. . TATRALON B. C. R.ISE TO THE BOIL, Ken START AT WK. HYDROGEN PEROXIDE. MINS. BOILFOR START AT 50°C. RAISE TO 95 °C. IN JOMINA RUN FOR 30 MINS. MASH OFF WELL. NEUTRALIZE WITH 1/2K. FLETIC. (LTC FUE 20 MINS. WASH OFF WELL. JASH OFF /ELL. 3: DIE (HETHOD) STARTAT 50°C ADD DYE OVER IOMINS. RUN FOR 20MINS RAISE TO 80°C TAKING 20MINS. RUN FOR 20MINS ADS 55K SALT OVER ZOMING RUN ZOMING. ADD 55K SALT ONER ZOMINS RUN FOR ZOMINS. ADD REMAINING 55K SALT OVER 20 MINS. RUN FOR 30 MINS. MOD 9K BICARBONATE OVER OMINS RUN FOR ISMINS ADD SCOR ASH IN TWO PARTS OVER 2MM MINS KUN FOR ISMINS BHOW. ON FOR HEMINS BHOW. PLEASE FOLLOW METHOD EXACTLY SRECIAL TRIAL SHLIDE PASSED. CHEMICLLS: K. RESIST SALT. CK. SALT 27 K. SODA ASH IF ANY ADDS COOLDOWN 9 K. GLAUDERS BICARBONATE K- CHUBTIC LIQ. TOT. DDITIONS TOTAL DYESTUFF 5 Blue SOFTER 5/2K. 2/4K. 4. BACKSCOUR: 5. K. SCOUREX R ALCANINE 544 BREDSYN PC12 K. RAISE TO THE BOIL, BOIL FOR COMINS. 20 MINS. T 30°C PH 5.5 LASH OFF /ELL.

LOT Nº / BATCH / (THES RESET 95)

	TARGET FINISHED	AI	RTEX		PEG	G.	(A⊾£ND <i>ER</i>	SAM	PHNG
VARIANT	(20035)	ғалық Wijth	COURSES	FABRIC WIJTH	COURSES	FABRIC WIJTH	FABRIC WIDTH	Courses 3CM.	FABR
18/1-24/311	61	61	48/49	60	48	60.5	61	46	614
18/2-48/311	65	65	48/49	63	47	65	65	47	65
18/1-24 327	65	65	44/45	63	44	65	65	44	654
18/2-40/327	68	65	44/45	64	46	68	68	45/46	684
18/2-48/327	69	71	45/46	67	44	69	69	43	684
18/1-24/344	69	71	38/39	67	39	68:5	69	40	695
18/1.20/327	69	71	49	67	49	69	69	47	693
28/1-40/246	70	71	58	685	ક્ક	70	70	57-	70
18/1-24/362	71	71	37	69	37	71	71	37	71
18/2-40/344	71	71	43/44	69 3	43/44	71	71	43	71
18/1-24/380	72	71	33	69	33/34	72	72	33 a	72
18/2-48/344	72	71	41	68	41	72	72	40'2	72
18/1-20/344	72	71	44/45	66	44/45	72	72	44	72
18/1-16/344	74	71	47	68	47/48	73 <sup>1</sup> 2	74	475	74-5
18/2-32/344	74	71	47	68/69	47	73 ts	74	46	74
24/1-32/276	74	71	51/52	69	51/52	74	74	51	74
28/1-40/259	74	71	52/53	70	53/54	74	74	53	743
24/1-32/276/A	74	71	ઇવ્ર	70	53	74	74.	512	74
	· ·								

COMMENTS

HELIOT PLIMATIC.

THIS BATCH WAS CAMENDERED ON THE

	PROCE	ESS CO			BATC 1980	н2.		
LOT No. 1/B2				26		DATE		
No. Pieces 18	F/	ABRIC	SIN	ale	JERSE	SPEC	No.	
WIDTH VARIOUS (SEE OVER	т (	RIMS				SPEC	No.	
Weight 245 Kg								
SHADE 2% PROCION BLUE	н-	EG		_				
PREPARATION		2-9	<		SPE	CIAL INST	RUCTIONS	
FLEISSNER			0		ांध	DIANI -	IN CERNA	ATION.
BREEDER SOFTEN	-						FOR CO	
BLEACH			/			JOINT PI	ROJECT	
DYE PAD DYE		AIRTE	×N	°2				
DRY ON					· ·			
PEGG №2 STRAIGHTEN	SLIT				OI		-oC	-
CUT OFF TUBETEX	STENT		10		Or	- O	ell-	
FLEISSNER	-	». EXAMIN				parc	ell-	$\sum$
FINISH ON PUMATIC						4	1/21	
TUBETEX CALLENDER	FLAT F	OLD					1CJL	•
HUNT & ARBACH								2
Weight Size Pce Weight Size					QUALI	ТҮ СНЕСК	s/III	
10.9 kg 28/1-34/259 16 21.4 18/1-16		SHA			Pat	rd	Mark	
10.5 28/2-80/246 17 15.0 18/1-20		FAS	STNE	SS	Pat	sed	WP	
12.7 24/1-32/291 18 12.7 24/1-32 16.8 18/1-20/362 19	4306	Piece		срі	wþi	Width	Kn.m/c	Dia.
13.2 18/2-48/362 20								
15.5 18/2-40/362 21								
13.6 24/2-64/276 22								
12.0 24/1-32A/29/ 23								
9.3 28/1-40/273 24 10.5 28/2-80/259 25		01.1	HER 1	TESTS				
10.5 28/2-80/259 25 11.8 28/2-72/259 26		-						
21.8 18/2-32/362. 27								
11.4 18/1-36/273 28								
9.3 28/+40/287 29								
16.8 24/1-28/291 30								
DMMENTS ROPE / PC N°S	/ -	6		Se	- in	12 ~	ietre o	f
ROPE 2 PC Nos	7 - 1	Z		Pol	yester	to	Indicute	
Rope 3 PC N's	13-	18		304	~~/~~	msh of	f each	Tope

SHADE; BLUE II	C		DATE:	22.4.80
CUSTOMER/LOT NO: 1 B2	FABRIC:		M/C. NO	$\sim q$
1 10 2	1		M/C.CAL	1818
WEIGHT: 245 KILOS.	NO. THECH	CIRIP		
1. SCOUR: K. DYSOL	8	4	K. CONTAVAN K. CAUSTIC I	LIQ.
K. SANDOPAN DICI	R	AISE TO THE	K. HYDROGEN BOIL IN 30MI	PEROXIDE. INS.
K. SODA ACH K. VISPAMINCA	BO	DIL FOR 30MI	NS.SHOW. TH	CETIC ACID.
	10	DMINS. AT 60	C. WASH ON	FF WELL.
RAISE TO THE BOIL, BOIL MINS. WISH OFF TELL. NEW WITH AGETLO ACID.	FOR UTRALIZE			
3. DYE (METHOD): START	MIRUL PAL	DD DYE	NEP 10H	NG RUN
		Do huis	Lis top	NOMIAS
FOR 20MUS KAISE TO BE ADD 55K SALT OVER 2	omine Run	20MINS 1	AND 55K	SALT OVER
ADD 55K SALT OVER 20 20HING RUN 20HINS AD	LO KCNAK			
Run FOR 30 MINS ADD	9K BIG	RBENATE	OVER	O HUNS RUN
FOR IGMING ADD DODA	AGM IN T	tio HARTS	OVER ON	MIND IL WAY
FOR HOMMAS SHOW	PUEASE TOATTMATE	TOPPO F		SEBPELIAL TRAI
K. SOLA				
V CALLAGE	BKARBO	NATE		
K. SANDO K. LYOGE	PUR. DK.			
K. SFA.				
DYESTURF.	1	2ADDIT	10NS <sub>4</sub> 5	BYEAL TOTAL
100 - Perce P				
4900 trocion B	we he	G		
<u></u> .				
4. BACKSCOUR.		SOFTE	K. ALCAMIN K. BRADSYN	E 544
K. SCOUREXR. K. TRIAMINE PR.		<u> </u>	K. BRADSYN K. M <del>YSTOLU</del>	HBE-TX.
K. RAISE TO THE BOIL, BOIL F	RORZOMINS	20 MI	NS. AT 3	OL PH.
WASH OFF WELL.	1			
COMMENTS ROPE / PC	N°s 1-	6	sew in 7	5 metre of
Rope > P.	Nº. 7	· 7 f	objester +	to indicate
Rope 2 Pc Rope 3 Pc		S	tart/finish	to indicate a of each r
Rope 3 Pc	Nºs 13-	18		

LOT Nº / BATCH & (THIES R.JET 95)

	TARGET FINISHED	AI	RTEX		PEG	G.	KALENDER	SAM	onue
VARIANT	(20035)	ғранс Wijth	Courses 3 cm.	FABRIC WIJTH	COURSES 3 CH.	FABRIC WIJTH	FABRIC WIDTH	Courses 3cm.	FABRIC
28/1-36/259 28/2-80/246 24/1-32/291 18/1-20/362 18/2-40/362 24/2-64/276 24/1-329/291 28/2-80/259 28/2-80/259 18/2-32/362	みみちななみ みみるみ み	たれたれた ちちちちょう	56/57 62/63 48 42 36 40 55 48 48/49 55/56 57 44	72 71/72 73 73 73 73 73 73 73 73 73 73 73 73 73	55 61 50 41 38 40 54 49/50 55 58 43	ネみおおおお みるみるおみ	みみびおだん ちんちんちゅう	55/56 60 48 40 38 39/40 54 50 50 53 56/57 43	神神ななみれ ろろろみろん
28/1-36/273 28/1-40/287 24/1-28/291 18/1-16/362 18/1-20/380 24/1-329/306	77 77 77 78 78 78 78	77な 77な 77な 77な 77な 77な	50 44/45 53/54 45 38 44	そ み み み ろ	50/51 45 53 44 38 45	77 77 77 78 78 78	77 77 77 78 78 78 78	50 45 51/52 43 38 44/45	763 763 763 773 779

<u>comments</u> Target width for Pegg dries was some as finished target width, but for Juther lobs this should be reduced by I cm to allow a little nore supe on the Calender. Also Nip weases from the ARTEX are permanent

		WINCH PROC	ESS COTTON	BATCH 3		
LOT NO. 1/B2	<b>)</b>			DA	TE.	
No. Pieces 18		F	ABRIC SINGLE	JEESEY SPE	C No.	
WIDTH VAC	ons (SEE	E QUER) T	RIMS	SPE	C No.	
Weight 248 kg						
6	PROCI	ON BLU	E H-EG			
PREPARATION		*	THES R-95	SPECIAL INS	TRUCTIONS	
F F						
BLEACH			· · · · · · · · ·	MERIDIAN		
	SOFTEN	M HI	CTEX Nº2.	INSTITU	TTE FOR CO	NOLLE
	-		V	JOINT	PROJECT	
DYE P	AD DYE					
DRY ON						
PEGG N'2 ST		SLIT		A./	كعر	
		—		OK	A.	
	JBETEX	STENT	ЕR @'С	0.00	film	~
FL	EISSNER	ROLL/		pa		$\mathcal{O}$
FINISH ON	1					
7 111011 011	D			•		
/	ALLENDER			• 20		
				• 2		
TUBETEX CA HUNT & AF MOSCROP	RBACH			•	- 11	
TUBETEX CA HUNT & AF MOSCROP	ALLENDER	Size		QUALITY CHEC	KS A	
TUBETEX CA HUNT & AF MOSCROP Weight Size 15 & 18/1-20/399	ALLENDER RBACH Pce Weight	Size	SHADE	QUALITY CHEC	KS ALLA	L.
TUBETEX CA HUNT & AF MOSCROP Weight Size 15 & 18/1-20/399	ALLENDER	Size		QUALITY CHEC	selfer	L .
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/380       12.5     24/2/44/29/       13.2     28/1-32/273/9	ALLENDER RBACH Pce Weight 16 /3.2 17 9.9 18 20 19	Size 24/1-29/304 28/1-40/301	SHADE	QUALITY CHEC	KS Ale In.m/c	L Dia.
TUBETEX CA HUNT & AF MOSCROP Weight Size 15 & 18/1-20/399 14.5 18/2-40/390 12.5 24/2-44/29/ 13.2 28/1-32/273/9 12.7 18/2-48/390	ALLENDER RBACH Pce Weight 16 /3.2 17 9.9 18 20 19 20	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS	assed	yes	L Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/380       12.5     24/244/29/       13.2     28/1-32/273/4       12.7     18/2-48/380       12.3     24/1-32/306	ALLENDER RBACH Pce Weight 16 /3.2 17 9.9 18 20 19 20 21	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS	assed	yes	L Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Veight     Size       15 & 18/1-20/399     14.5       12.5     24/24/399       13.2     28/1-32/329       12.7     18/2-40/380       12.7     18/2-40/380       12.7     18/2-40/380       12.7     18/2-40/380       12.3     24/1-32/306       11.8     88/2-72/273	ALLENDER RBACH Pce Weight 16 /3.2 17 g.9 18 20 19 20 21 22	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS	assed	yes	L.
TUBETEX CA HUNT & AF MOSCROP Weight Size 15 & 18/1-20/399 14.5 18/2-40/380 12.5 24/244/29/ 13.2 28/1-32/273/4 12.7 18/2-48/380 12.3 24/1-32/306 11.8 28/2-72/273	ALLENDER RBACH Pce Weight 16 /3.2 17 9.9 18 20 19 20 21	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS	assed	yes	Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/380       12.5     24/2/24/29/       13.2     28/1-32/273/4       12.7     18/2-48/380       12.3     24/1-32/306       11.8     28/2-72/273       14.1     24/2-46/29/       15.6     28/1-32/273       10.0     28/1-32/287	ALLENDER RBACH Pce Weight 16 /3.2 17 g.9 18 20 19 20 21 22 23	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS	assed	yes	Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/390       12.5     24/2/44/29/       13.2     28/1-32/373/4       12.7     18/2-48/380       12.3     24/1-32/30/       11.8     28/2-72/273       14.1     24/2-56/29/       15.6     28/1-32/273       10.0     28/2-89/273	ALLENDER RBACH Pce Weight 16 73.2 17 8.9 18 20 19 20 21 22 23 24	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS Piece cpi	assed	yes	Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Veight     Size       15 & 18/1-20/399     14.5       12.5     24/2       12.5     24/2       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.3     24/1-32/306       11.8     28/2-72/273       14.1     24/2-56/291       15.6     28/1-32/273       10.0     28/2-30/273       10.0     28/2-30/273       10.0     28/2-30/273       10.0     28/2-30/273       10.0     28/2-30/273       10.0     28/2-30/273	ALLENDER RBACH Pce Weight 16 73.2 17 8.9 18 20 19 20 21 22 23 24 25	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS Piece cpi	assed	yes	Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Veight     Size       15 & 18/1-20/399     14.5       12.5     24/24/399       12.5     24/24/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.7     18/2-40/390       12.3     24/1-32/306       11.8     28/2-72/273       14.1     24/2-56/291       15.6     28/1-32/273       10.0     28/2-50/273       20.5     18/1-16/380       21.4     18/2-32/350	ALLENDER RBACH Pce Weight 16 17 20 17 20 21 20 21 22 23 24 25 26 27 28	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS Piece cpi	assed	yes	Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     AF       Veight     Size       15 & 18/1-20/399     14.5       12.5     24/2       12.5     24/2       12.7     18/2-40/380       12.7     18/2-40/380       12.7     18/2-40/380       12.7     18/2-40/380       12.3     24/1-32/306       11.8     28/2-72/273       16.0     28/1-32/273       10.0     28/2-80/273       20.5     18/1-16/380       21.4     18/2-32/380       21.4     28/2-44/273	ALLENDER RBACH Pce Weight 16 17 8 9 17 8 9 18 20 19 20 21 20 21 22 23 24 25 26 27 28 29	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS Piece cpi	assed	yes	Dia.
TUBETEX     CA       HUNT &     AF       MOSCROP     Moscrop       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/320       12.5     24/244/29/       13.2     28/1-32/273/4       12.7     18/2-46/320       12.7     18/2-46/320       12.7     18/2-46/320       12.7     18/2-46/320       12.3     24/1-32/306       11.8     28/2-72/273       15.6     28/1-32/273       15.6     28/1-32/273       10.0     28/2-80/273       20.5     18/1-16/380       21.4     18/2-32/380       13.4     28/2-44/273       11.4     24/1-32/321/4	ALLENDER RBACH Pce Weight 16 13.2 17 20 18 20 21 22 23 24 25 26 27 28 29 30	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS Piece cpi	wpi Width	Un.m/c	
TUBETEX     CA       HUNT &     AF       MOSCROP     Moscrop       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/380       12.5     24/2/4/29/       13.2     28/1-32/273/4       12.7     18/2-49/380       12.7     18/2-49/380       12.7     18/2-49/380       12.3     24/1-32/306       11.8     28/2-72/273       16.0     28/2-80/273       15.6     28/1-32/273       10.0     28/2-80/273       20.5     18/1-16/380       21.4     18/2-32/380       13.4     28/2-44/273       11.4     24/1-32/321/4	ALLENDER RBACH Pce Weight 16 17 8 9 17 8 9 18 20 19 20 21 20 21 22 23 24 25 26 27 28 29	Size 24/1-29/304 28/1-40/301	SHADE FASTNESS Piece cpi	wpi Width	Un.m/c	
TUBETEX     CA       HUNT &     AF       MOSCROP     Moscrop       Weight     Size       15 &     18/1-20/399       14.5     18/2-40/320       12.5     24/244/29/       13.2     28/1-32/273/4       12.7     18/2-46/320       12.7     18/2-46/320       12.7     18/2-46/320       12.7     18/2-46/320       12.3     24/1-32/306       11.8     28/2-72/273       15.6     28/1-32/273       15.6     28/1-32/273       10.0     28/2-80/273       20.5     18/1-16/380       21.4     18/2-32/380       13.4     28/2-44/273       11.4     24/1-32/321/4	ALLENDER RBACH Pce Weight 16 /3.2 17 8.9 18 20 19 20 21 22 23 24 25 26 27 28 29 30 Pc Noce	Size 24/1-29/30/ 28/1-40/30/ 18/2-32/399 	SHADE FASTNESS Piece cpi	wpi Width	Un.m/c	
TUBETEX       CA         HUNT &       AF         MOSCROP       Weight       Size $15 & 18/1 \cdot 20/399$ $14.5$ $18/1 \cdot 20/399$ $14.5$ $18/2 \cdot 40/390$ $12.5$ $24/2 \cdot 40/390$ $12.5$ $24/2 \cdot 40/390$ $12.73/4$ $12.77/8/2 \cdot 48/390$ $12.7$ $18/2 \cdot 40/390$ $12.73/4$ $12.77/8/2 \cdot 48/390$ $12.7$ $18/2 \cdot 48/390$ $22.73/4$ $12.77/8/2 \cdot 48/390$ $12.3$ $24/1 \cdot 32/32/273$ $14.1$ $24/2 \cdot 56/291$ $15.6$ $28/1 \cdot 32/273$ $10.0$ $28/2 \cdot 50/273$ $10.0$ $28/2 \cdot 50/273$ $273$ $80.5$ $21.4$ $18/2 \cdot 32/380$ $21.4$ $18/2 \cdot 32/380$ $13.4$ $28/2 \cdot 44/273$ $11.4$ $24/1 \cdot 52/32/34$ MMENTS $60.2e \cdot 1$ MMENTS $60.2e \cdot 1$	ALLENDER RBACH Pce Weight 16 /3.2 17 8.9 18 20 19 20 21 22 23 24 25 26 27 28 29 30 Pc NoS	Size 24/1-29/30/ 28/1-40/30/ 18/2-32/399 18/2-32/399 1-6 7-12	SHADE FASTNESS Piece cpi	assed	Un.m/c	

SHADE: BLUE CUSTOMER/LOT NO: JIC KI B	<i>.</i> G	55			NE NO:	9
EIGHT: 248 K: NO. OF PIECH	ES: ME	TRES:	MACHIN			LITRE V
1. SCOUR: K. LYOCOL HEB K. SODA ASH K. SODA ASH K. START AF <sup>D</sup> C. RAISE TO THE BOIL, BORL FOR MINS. MASH OFF WELL. 3. START AT SO°C WITH MATER 20 MINS RAISE TO 80°C TH ADD 55 K SALT OVER 20 20 MINS RUN 20 MINS ADD RUN FOR 30 MINS ADD 5 BMINS. ADD SODA ASH M	ST RIM NO XIL PAL. KING 2 MINS. RI D REMAN D REMAN	BLEACH 2 K. 2 K. K. K. K. K. K. K. K. K. K.	MINS.SHO MISH R OVER UN FOR INS. AD SSK BR	HIQ. HIQ. N PERO SE TO Wasser Vore LOM LOM	95 °C.	LI GO°C JN FOC NOT OVER NOT OVER NOT OVER
* PLEASE FOLLOW NET						
	COLUMN TWO IS NOT THE OWNER.					
CHAMICALS. K. RESIST SALT. K. SALT. R. SODA ASH K. GLAUBERS. BICAC BONATC K. GAUSTIC LIQ.	G/L		E PASSED.		-	
165 K. RESIST SALT. 165 K. SALT. 37 K. 30DA JSH 9 K. GLAUBERS.BICAR BONATE	COLUMN TWO IS NOT THE OWNER.		E PASSED.	_ 5	TOTAL DYE	тот
K. RESIST SALT. 165 K. SALT. 77 K. 30DA ASH K. GLAUBERS. BICAR BONATE K. GAUSTIC LIQ.	G/L	SHAD	E PASSED.			TOT

LOT Nº 1 BATCH 3 (THIES R-95)

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		TARGET	AI	RTEX		PEG	G.	CALENDER	SAM	Prive
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	VARIANT			/		/			/	FABRI WIDTH
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	18/1-20/399	78	75	33	74	34/35	77	78	34	77
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	18/2-40/380	78	75	36	73	35/36	765	78	36	773
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		78	75	47	72	46/47	77	78 2	48	773
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		78	75	53	72		77	78	53	78
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	18/2-48/380	79	75	34/35	73	35	78	795	34/35	78%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	24/1.32/306	79	75		72	45	78	79.		782
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	28/2-72/273	79	75	50	72	51	78	79	50	783
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	24/2-56/291	79	75	49	72	49	775			78
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	28/1-32/273	79	75	51	72	1				80 5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1	1	75	44/45	72	45	79			79
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	28/2-80/273	80	75			49	79	80	46	80
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	18/1-16/380	80	75	39	74	39/40	79	80	495	79:2
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	18/2-32/380	80	75	37/38	74	39/40	79	80	40/41	80/2
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	28/2-64/273	80	75	54	74	53	79	80	53/54	82-84
24/1-28/306 81 75 45 75 45 80 81 45/46 8 24/1-40/301 81 75 39 76 40 792 812 41/42 8	24/1-329/321	80	75	38/39		41	79	80		802
24/1-40/301 81 75 39 76 40 792 812 41/42 8			75	-	75	45	80	81	45/46	814
18/2-32/399 81 75 34 76 34 80 81 36/37 8			75	39	76	40	795	81 =		82'5
	18/2-32/399	81	75	34	76	34	80	81	36/37	81
									· ·	

<u>COMMENTS</u> Mechanical problems en the Phimatic foiled a change to standard HELIOT Suggest the standard machine is used for subsequent dye lots. Pc 5 9-18 - PLIMATIC Pc 5 1-8 - STANDARD HELIOT

						PROCE	SS COTTO	DN B	PACH	4		
DT No.	K	1./	B4	-			-			DATE.		
o. Pieces	s	21				FA	SIN SIN	SERS	ส	SPEC I	No.	
IDTH		VAE	ions	(SKA	( DJ	=• TF	RIMS			SPEC I	No.	
	9	71.	4	1.51								
eight	d	74	kg			-						
HADE	1.1	2°/0		PROG		and the second sec	🤇 Н-	EG				
EPARA	TION				TH	ES I	e-95		SPEC	CIAL INSTR	UCTIONS	
ET .	* [-	7,	LEISS									
		_ ·	LLIOC						WE	BIDIAN -	<ul> <li>INTERI</li> </ul>	VATION
HIT -		21		SOFT	ŝ	$\square$			1	ISTITUT	E FÓR C	MOTION
which	Ľ								•	JUNIT P		10P
	_	-		-		AIR	TEX V 2 J			ACHIAI P	ROJECT	
DYE	~	ſ	PAD D	YE L		N	≗ຊ ໌					`
RY ON									Re	a da	Ê.c	
PEGG r	12 1	7,	TRAI	SHTEN		SLIT				6	אטן	
	- <u></u>								R			
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		F	LEISS	NER		ROLL/I	EXAMINE					
NISH ON	N		D H	ELIOT								
TUBETE	EX [	٦ d			~	FLAT F						
HUNT 8	_	_	RBAC									
MOSCR		^	INDAU	" L								
eight	Size		Pce	Weight	Size				QUALI	TY CHECKS		
18.6K		399	16	15.7		-24/321	SHADE		Pass	l'A -		
4.5	18/2-40		17	11.4.	281.	321 30	FASTN	ESS	lass	Idn		
15.9	24/1-2		18	12.7		8/337	Diana	1		Width	Kn.m/c	Dia.
	24/2-6	11	19 20	11.8		64 301	Piece	срі	wpi	maan	Kilaniye	
	<u>86/1-36</u> 28/2-80	7.	21	17.3		48 321		1				
	84/1.32	7 /	22	1.5	1-1-	40,521						
4.5	24/2-5	6/306	23									
10.9	28/2-7	2/287	24				OTHER	TESTS				
	24/2-48		25				UTHER					
	24/1-21		26 27					W/Criti	DIAN	INTER	NATION	10
3.0	28/2-64	6321	28					IN	STITU	TE FOR C	OTTON	
		A 287	29							PROJECT		
	28/1.3	6/316	30									
MENTS							Sen	· ~	、ち	metr	e pol.	restes
	1	PL	N°S	\$	1-1	7	1			,	0/1.	J "
PE å	-	PC			3 - )		10	mo	head	te sta rep	est/dr	nish
							of	la	ch	NOR	2 .	
PE 3	3	PEI	۷° S	1.	5 - à	21	0			-0		

6.5 80 BLUE TS DATE: LADE: THIES MACHINE CAPACITY NO: 55 ISTOMER/LOT NO: MACHINE CAPACITY: ITRES METRES: NO. OF PIECES: :IGHT: 274 K. 818 2 K. CONTAVAN HW. UISCAUN CA 4 K. CAUSTIC LIQ. 4 K. HYDROGEN PEROXIDE. RAISE TO THE BOIL IN 30MINS, BOIL FOR 30MINS.SHOW. NEUTRALIZE WITH 1± K. ACERIC ACID. 20MINS. AT 60°C. WASH OFF WELL. COUR. LYOCL HEB SODA ASH. °C. RAISE TO THE BOIL, TART AT MINS. ASH OFF WELL. VE (METHOD) START AT 50°C WITH MATEXIL PAL PAD DHE OVER 10MINS. LUMOR 20MINS RAISE TO BO'L TAKING 20MINS RUN FOR 20MINS ADD 55K SALT OVER 20MINS RUN 20MINS ADD 55K SALT OVER 20 MINS RUN 20 MINS ADD REMAINING 55% SALT OVER 20 MINS RUN FOR 30 MINS ADD 9K BIRARBONATE OVER 10 MINS RUN FOR 15 MINS ADD SODA ASH IN TWO PARS OVER 20 MINS RUN FOR DEMINS SHOW RUN FOR DEMINS SHOW METHOD EXACTLY - SPECIAL TRIAL SHADE PASSED. G/L LEMICALS 4.K. RESIST SALT. SK. SALT 7K. SODA ASH 9 K. GLAUDERG BICARBONATE K. CAUSTIC LIQ. TOTAL TOTAL ADDITIONS DYESTAUFF % DYE 3 2. 5480 gm TROCION BILLE HEG SOFTEN 5. ACKSCOUR: ALCAMINE 544 52K. ۱ K. K. SCOUREX R BRADSYN PC12 24K MYOPCIUBE\_TX ISE TO THE BOIL, BOIL FOR PH 5.5 20 MINS. AT 30°C  $2\omega^{\text{mins}}$ SH OFF WELL.

# LOT Nº / BATCH 4

	TARGET FINISHED	A I	RTEX		PEG	G.	CALENDER	SAM	onue.
VARIANT	WIJTH	FRANK	COURSES	FABRIC	COURSES	FABRIC	FABRIC	Courses	FABRI
	(comps))	WIJTH	304.	WIJTH	3 сн.	WIJTH	WIDTH	304.	WIDTH
18/1-16/399	81	80	36	78	36	80	81	35/36	8/
18/2-40/399	81	80	34	77	35	80	81	33/34	8/
24/1-24/306	୫ଛ	80	47/49	76	50	81	82	48/49	82
a4/2-64/306	82	80	44	77	45	81	82	44/45	82
28/1.36/301	82	80	40/41	77	42/43	81	82	43	୫၃
28/2-80/287	82	80	44/46	76	47	81	82	45	82
24/1-32A/337	82	80	36	77	37	81	82	38	82 2
4/2-56/306	82	80	46/47	79	49	81	82	46	82
28/2-72/287	83	80	47	79	47	82	83	4.7/48	83
24/2-48/306	83	80	48/50	78	50	82	83	49/50	83
24/1-28/321	83	80	41/42	78	43	82	83	44	83
28/2-64/287	83	80	50	78	48	82	83	49	83
24/2-56/321	84	80	42/43	79	43	83	84	43	84-
28/1-329/287	84	80	49/50	78	51	83	84	49	84.
28/1.36/316	84	80	40/41	80	4.0	83		not.	84
24/1-24/321	84	80	48/49	80	46	83	84 84	40/41 45/46	84
28/1-32/301	85	80	46	80	47	84	85	45	84 85
24/1-28/337	શ્વર	80	39/40	80	39	84	85	39/40	85
28/2-64/301		80	44/45	80	46	84	85	44/45	શ્ક
24/2-64/321		80	1	80	43	84	85	41/42	85
24/2-48/321	86	80	46/47	80	44	85	86.	44/45	85/86.

COMMENTS

			Vie		PROCES	S COTTO	N B	ATCH	5		
OT No.	KIBS								DATE.		
lo. Pieces	19 +				FAB	RIC SI	VALE	JERSEY	SPEC N	0.	
VIDTH			SEE O	ter)	TRI				SPEC N	0.	
	27			1							
Veight					2	HIG G					
HADE	2%	>	(ROCIO)	1 1	314E *-TH	HES R-9	5	SPECI	AL INSTRU	ICTIONS	
REPARAT				-							
WINGH	FL FL	EISSN	ER					MERI	DIAN -	INTERN.	ATIONA
ROOLIP		Safe	TEN L	/				IN	ISTITUTE	FOR CO	NOT
SCOUR BLEACH		201-1	614						JOINT PI	TOJECT	
DYE	PA	D DY			AIR	iex N°2	~				
DRY ON											
PEGG N	r2 🗹 ST	RAIG	HTEN		SLIT						
CUT OF	: F [] ТІ	UBETE	x [		STENTE	R 'C					
		LEISSI				XAMINE			-		
FINISH O	N										
TUBET	EX C	ALLE		7	FLAT F	OLD		l			
HUNT 8	8 🗌 A	RBAC	нΓ					1			
MOSCR				Lai				OLIALI	TY CHECK	S	
Weight , 8.2	Size	Pce 16	Weight	Size	× 372	SHAD	E	done.			
18.2	28/1-324/36	17	13.0		-54/35+	FAST	NESS				
19.9	18/2-32/419	18	11.4		64/332	Piece	cpi	wpi	Width	Kn.m/c	Dia.
12.7	24/1-28/354	19	14.5		48/372 NT)	FIELD	1 00.				
14.5	24/1-24/337	20	3.3	FE							
12.3	28 2-64/316	22	6.1		NT Y						
12.7	24/2-56/337	23	5.7		NT)						
10.0	28/2-7/301	24				07115	D TC01				
15.5	24/2-48/337	25	1			OTHE	R TES	10			
15.0	24/1-24/354	26									
16.3	24/2-48/354	27									
10.0	28/2-12/316	28									
11-24	28/1-32A/332					1					
11.4	24/2-64/337	30					-				
OMMENT	s Rope 1		PCN							of P relfini	
	RSPE 2		PLN					rope		- J Coa	2
	Rore 3		PCNS	15	- 19 1	+ FENTS					

TIC TRAL 13-5-80-OATE: or: 110: K/ 👪 THIES NO. OF PIECES: METRES: MACHINE CAPACITY: LITRES Κ. 15 1818 **4** K. CONTAVAN HE. **4** K. CAUSTIC LIQ. **4** K. HYDROGEN PEROXIDE. RAISE TO THE BOIL IN SOMINS. CL HEP WELL. FOLLOW METHOP EXACTLY ID) START AT SO'L WITH MATEXIL PAL ADD DIE OVERIONINS 20 MINS RAISE TO 80% TAKING 20 mins RUN 20 HANAS OF SALT OVER 20 mus RUN 20 mus ADD REMAINING HERO mins RUN FOR 30 mins ADD 9K BICARBONATE RUN FOR 15 ms ADD SODA ASH IN 2 PARTS ms RUN FOR 45 mis AND SHOW SHADE PASSED. G/LTOT GALT MITCHL PAL m. A ASH UPERS STID-LID. BICARBONATE TOTAL TOTAL ADDITIONS 5 DYE UFF BOLION BLUE HEG SOFTEN 5. UR: ALCAMINE 544 бк. SCOUREX R BRADSYN PC42 К. 20 MINS. AT 30°C PH 5. MYSTOLUBE TX THE BOIL, BOIL FOR 20 MINS WELL.

	TARGET	AI	RTEX		PEG	G.	(ALENDER
VARIANT	ғімібнед Шідтн	FRAME	Courses	FABRIC	دەسلاھلاچ	FABRIC	FABRIC
•	(ROUNDAD)	WIJTH	3 CH.	ખાગ્રેમમ	3 сн.	WIJTH	WIDTH
18/1-16 419	86	86	34	84	35/36	85	86
28/1-32A 316	86	86	42	83	43	ક્રડ	86
18/2-32/419	87	86	35	83 3	35	854	87'3
24/1-28/354	87	86	36	84	36	86	87-
24/1-24/337	88	86	40/41	84	43/44	87	88-2
28/2-80/301	88	86	43	83	44	87	88
28/2-64/316							

		FINISHED								
	VARIANT .	(20435)	FRAMK WIJTH	Coulors	FABRIC WIDTH	COURSES	FABRIC WIJTH	FABRIC WIDTH	Courses 3 cm.	FABRIC WIJTH
	18/1-16/419 28/1-32A/316 18/2-32/419 24/1-28/354 24/1-24/337 28/2-80/301 28/2-64/337 28/2-72/316 24/2-48/337 24/2-48/354 24/2-48/354 28/2-72/316 28/2-72/316 28/2-72/316 28/2-32A/332 24/2-64/337 24/2-56/354	86 86 87 87 88 88 88 88 88 88 88 88 88 88 89 89 90 90 90 90 90 91 91	WIJTH 86 86 86 86 86 86 88 88 88 88 88 88 88	3 cm. 3 4 2 3 6 41 43 45 41 44 43 45 41 44 44 38 39 42 38 39 35 36 36 36	WIJTH 84 83 4 84 83 4 84 83 4 84 85 84 86 86 85 89 89 89 89 89 89 89	3 cm. 35/36 43 35/36 43 36 44 44 40 40 40 40 40 40 39 36 37	WI)TH 85 85 85 86 87 87 87 87 87 87 87 88 87 88 87 88 87 90 90 90 90 90 90 90	86 86 875 885 88 88 88 88 88 88 88 89 90 91 91 91	3 CM. 35 43/43 34/35 37 42/43 39/45 39/45 43/45 39/45 38/39	WIDTH 85 86 4 87 88 87 8 87 8 87 8 87 8 87 8 87 8 8
	28/2-64/332 24/2-48/372	94 97	91 91	3૧ ૩૬	89 902	41 36/37	93(HAX) 93\$(HAX)	94	39	93'a 93'a 94'2
	FENTS.		91							142
(	<u>comments</u> The last 3 pieces in the series are a little too wide for the Pegg drijer.									

SAMPHING

10/12		¥		PROCESS	COTTON	1 L	or 3	DATE.		
r No.K2/23	·		T	FAB	BIC			SPEC No	<b>.</b>	
Pieces / 20	1		5			1		SPEC No		
TH VARIONS	Cs	ee an	4)	TRIN	15					
ght 255	2g									
ADE 2º/2	7	locion		BLUE	H-E	G				
EPARATION	ISSN	The second	ŝ,	Bere	SCHO	ri.	SPECI	AL INSTRU	CTIONS	
	1001						MERID	14M - 1	NTERNA	TIONAL
SLEACH L		SOF	TEN					TITUTE		
						• ~				
	DY			Ant	JEX N	52		OINT PRO	JECI.	
IY ON										
PEGG STF	RAIG	HTEN		SLIT						
СИТ ОFF ТИ	вете	x		STENTE						
FLI	EISSI	NER		ROLL/E	XAMINE ,					
NISH ON		1.	1					:		
	LLE		1	FLAT F	OLD		<i>c</i>			
	BAC		5							
	DAG						1			
The Fight of Carl State	Pce	Weight	Size				QUALI	TY CHECKS	/	
0.5 28/1-36/259.	16	13.20	24/1-	28/354	SHADE		-Por	20 /	0	
2.3 1/ 28/2-72/259	17	13.4 1	24/2-	6/337	FAST	IESS	100	70	<b>`</b>	
11.8 28/1-36/873	18	10.5 V	28/2-	79/301	Piece	cpi	wpi	Width	Kn.m/c	Dia.
16.9 /24/1-21/291	19 20	10.51	01/0	1 1354						
12.7 28/2-75/273	21	13.0	or per	0/						
15.0 10410-30/07	22	20						-		
10.9 28/1-36/287	23									
14.1 241-28/306	24	81.				-	-			
155 24/2-56/306	25				OTHE	R TEST	3			
11.8 28/2.70/887	26	1								
13.6 24/1-28/381	27	S								
13.6 24/1-28/381	28	1.	-							
10.5 128/1-36/316	29									
13.6 1 84/1.28/337	30	1.11			L					
MMENTS PL					Seri	yes	ter	å m to d	etre ndrce	.li
Rope a Pe	N-3	s 11-8	0	•	ste	κ	step	d.	lach	rope

IIC BLUE DATE: SHADE: THIES MACHINE CAPACATY NO: CUSTOMER/LOT NO: K2 L3 LITRES MACHINE CAPACITY METRES: NO. OF PIECES: WEIGHT: 255 K. 1600 2 K. CONTAVAN HW. 4 K. CAUSTIC LIQ. 4 K. CAUSTIC LIQ. 14 K. HYDROGEN PEROXIDE. 14 K. CAUSTIC LIQ. 14 K. HYDROGEN PEROXIDE. 14 K. CAUSTIC LIQ. 14 K. HYDROGEN PEROXIDE. 15 C. RAISE TO THE BOIL, 16 K. HYDROGEN PEROXIDE. 17 C. RAISE TO THE BOIL, 17 C. RAISE TO THE BOIL, 17 C. RAISE TO THE BOIL, 18 C. HYDROGEN PEROXIDE. 18 C. HYDROGEN PEROXID. 18 C. HYDROGEN PEROXIDE. 18 C. HYDROGEN PEROXID. 18 C. HYD 1. SCOUR. LYOCL MEB Κ. SODA ASH. START AT ćĸ. BOIL FOR MINS. WASH OFF MELL. DYE (METHOD) START AT 50°C WITH MATEXIL PAL AGO DYE OVER 10MINS. RUN FOR 20MINS RAISE TO 80°C TAKING 20MINS RUN FOR 20MINS ADD SSK SALT OVER 20MINS RUN 20MINS ADD SSK SALT OVER 20 MINS RUN 20 MINS ADD REMAINING SEX SALTONER 20MINS RUN FOR 30 MINS ADD 9K BICARBONARE ONR YOMINS RUN FOR ISMINS ADD SODA ASH INTERD PARSONER 20MINS RUN FOR NO MINS SHOW RUN FOR NO MINS SHOW SHADE PASSED. G/L CHEMICALS K. RESIST SALT. 27K. SODA ASH **9** K. OAUSTIC-LIG. TOTAL TOTAL ADDITIONS % DYESTAUFF DYE 2 20CION BLUE HEG SOFTEN 5. 4. BACKSCOUR: ALCAMINE 544 51 K. | K. Κ. BRADSYN PC12 23 K. HYBTELLIBE TX 20 MINS. AT 30°C PH 5. Κ. RAISE TO THE BOIL, BOIL FOR MINS 20 WASH OFF WELL.

LOT Nº KQ LOT 3 (SCHOLL SUBTILO).

	NIGHED		RTEX		PEG	G.	ƘA∿€∾⊅ <i>€₿</i>	SAM	PHNG
VARIANT	พเวก ( ())))	Frank Wijth	Coulds rs	FABRIC WIJTH	Courses 3 CH.	FABRIC WIJTH	FABRIC WIDTH	Courses 3cm.	FABRI
28/2-72/287 24/1-28/321 24/2-56/321 28/1-36/316 24/1-28/337 24/1-28/354 24/2-56/337 28/2-72/301 28/2-72/301	747777777777777777777777777777777777777	7477778882282828288890999333	58 57 53 53 53 54 54 54 54 54 54 54 54 54 54 54 54 54	71 73 75 77 77 78 78 79 80 82 82 84 86 89 86 86 86 86 86 86 86 86 86 86 86 86 86	567 52 54 53 51 44 47 51 33 34 43 38 54 43 38	だんちちゃうのとし むむむむちょうやう	747677797888822 333444578889993	55595577446 43344457444	747677779908822 838888888888893

COMMENTS

No. Pieces $20$ FABRIC SPEC No. No. Pieces $20$ FABRIC SPEC No. WIDTH VARIONS (SEC QUER) TRIMS SPEC No. Weight 1955 (Sec QUER) TRIMS SPEC No. Weight 2955 (Sec QUER) TRIMS SPEC No. Weight 1955 (Sec QUER) TRIMS SPECIAL INSTRUCTIONS SALE OF CONTROL AND A THESS PREPARATION THEISSNER FOR THESS SPECIAL INSTRUCTIONS SALE OF CONTROL AND A THESS PREPARATION AND A THESS SPECIAL INSTRUCTIONS SALE OF CONTROL AND A THESS PREPARATION AND A THESS PREPARATION AND A THESS PREPARATION AND A THESS PREPARATION A THESS SALE AND A THESS SPECIAL INSTRUCTIONS SALE AND A THESS SALE AND A THESS SPECIAL INSTRUCTIONS SALE AND A THESS SPECIAL INSTRUCTIONS SALE AND A THESS SALE AND A THESS SPECIAL INSTRUCTIONS SALE AND A THESS SPECIAL INSTRUCTIONS SALE AND A THESS AND A THESS CONTROL AND A THESS AND A THE A THESS NO. AND A THESS AND A THESS AND A THE	LOT NO. K2 / LOT	PROCESS COTTO		DATE.	
Image: Second state of the second				SPEC No.	
WIDTH       UNTELOUS       CER       General         Weight $9^{0}$ $PEOCLON$ $BLUE$ $H - EG$ SPECIAL INSTRUCTIONS         SHADE $2^{0}$ $PEOCLON$ $BLUE$ $H - EG$ SPECIAL INSTRUCTIONS         SHADE $2^{0}$ $PEOCLON$ $BLUE$ $H - EG$ SPECIAL INSTRUCTIONS         SHADE $2^{0}$ $FLEISSNER$ $Roto-stean$ MERIDIAN       INSTITUTE FOR COTTO         JOINT PROJECT $OVE$ $PAD$ DYE       INSTITUTE FOR COTTO       JOINT PROJECT         DRY ON       PEGG $STRAIGHTEN$ SLIT       INSTITUTE FOR COTTO         PEGG $V$ PAD DYE       INSTITUTE FOR COTTO       JOINT PROJECT         DRY ON       PEGG       STRAIGHTEN       SLIT       INSTITUTE FOR COTTO         PEGG       TUBETEX       STENTER $CLEAMINE$ INSTITUTE FOR COTTO         HUNT &       ARBACH       INOSCROP       INTER       CALLENDER       FLAT FOLD         HUNT &       ABACH       INOSCROP       INTO PROJECT       INTO PROJECT         VII-8       28/2-12/23       INVERSES       Gas       INTO PROJECT         VII-8       28/2-12/23       I		TRIMS		SPEC No.	
SHADE $\partial f/o$ $Peoce on Broker       H \cdot E \in       SPECIAL INSTRUCTIONS         PREPARATION       THIES       SPECIAL INSTRUCTIONS         Set       releissner Roto-steam       Special Instructions         Breach       releissner Roto-steam       Special Instructions         Direction       releissner Roto-steam releissner       Special Instructions         Dye       Pad DYe Pad DYe Instructions Instructions         Dregg       Pad DYe Pad DYe Instructions Instructions         Dregg       Soften Aherex n^2 S Instructions Instructions         Dregg       Soften Aherex n^2 S Instructions Instructions         Dregg       Pad DYe Instructions Instructions Instructions         Dregg       Pad DYe Soften Soften Instructions Instructions         Dregg       Soften Soften Soften Soften Instructions         Instruction of the state       Soften Soften Instructions Instructions         Instend       Instructions Inste$		VER THING			
SHADE $Cr/2$ THIES       SPECIAL INSTRUCTIONS         PREPARATION       FLEISSNER       ROTO-STREAM       MERIDIAN	Weight 195 and ka				
PREPARATION       THIES       SPECIAL INSTRUCTIONS         Set *       FLEISSNER $Koto_stream$ SPECIAL INSTRUCTIONS         BLEARH       SOFTEN       Andrey A* 2       MERIDIAN - INTERNATION         BLEARH       SOFTEN       Andrey A* 2       MERIDIAN - INTERNATIONS         BLEARH       SOFTEN       Andrey A* 2       JOINT PROJECT         DYE       PAD DYE       JOINT PROJECT       JOINT PROJECT         DRY ON       PEGG       STRAIGHTEN       SLIT       JOINT PROJECT         CUT OFF       TUBETEX       STENTER       COLL/EXAMINE       JOINT PROJECT         FINISH ON       TUBETEX       CALLENDER       FLAT FOLD       HUNT & ARBACH       MOSCROP         Weight       Size       Pce       Weight Size       Pce       Weight OF 20 Stream       Coull ITY CHECKS         Y 1/-8       28(-32/259)       17V 1/-9.       28(-32/259)       FASTNESS       Coull ITY CHECKS         Y 1/-8       28(-32/259)       17V 1/-9.       28(-32/259)       Good Stream       Good Stream         Y 1/-8       28(-32/259)       17V 1/-9.       28(-32/259)       Good Stream       Good Stream       Good Stream         Y 1/-8       28(-32/259)       10V 10-5       28(-32/259)	SHADE 2% PROCION	N BLUE H.			
Set +       FLEISSNER       MERIDIAN INTERNATI         BLEARH       SOPTEN       ANBREY N <sup>2</sup> Q       INSTITUTE FOR COTTO         DYE       PAD DYE       INSTITUTE FOR COTTO       JOINT PROJECT         DRY ON       PEGG       STRAIGHTEN       SLIT       INSTITUTE FOR COTTO         CUT OFF       TUBETEX       STENTER       C         FLEISSNER       ROLL/EXAMINE       FLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       IN         MOSCROP       ROLL/EXAMINE       FASTNESS         VII-8       26/1-52/257       19/1-52       24/1-94/554         VII-8       26/1-52/257       19/1-52       24/1-94/554         VII-8       26/1-52/257       19/1-52       24/1-94/554         VII-8       26/1-52/257       19/1-52       24/1-54/554         VII-8       26/1-52/257       19/1-52       24/1-54/554         VII-8       26/1-52/257       19/1-52       24/1-54/554         VII-8       26/1-52/253       20/1-54/5454       10/1-54/544         VII-8       26/1-52/253       20/1-54/5454       10/1-54/544         VII-9       24/1-54/542       0T				L INSTRUCTIONS	
BLEARH       SOFTERN       AIBSTER       INSTITUTE FOR COTTO         DYE       PAD DYE       JOINT PROJECT         DRY ON       PEGG       STRAIGHTEN       SLIT         DRY ON       PEGG       STRAIGHTEN       SLIT         CUT OFF       TUBETEX       STENTER       C         FINISH ON       TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         Weight       Size       Pee       Weight       Size         VI 0: 3       26/2-52/257       18/10:5       28/202/254       FASTNESS       6:55         VI 0: 3       26/2-52/257       18/10:5       28/202/254       FASTNESS       6:55       1         VI 0: 4       26/202/254       28/202/254       FASTNESS       6:55       1       1         VI 0: 5       28/202/254       16/10:56       28/202/254       1       1       1         VI 0: 5       28/202/254       16/2056       16/2056       1       1       1       1         VI 0: 7       28/202/254       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Ker hannan T	ROTO-ST	CEAH ACTRIC	MAN - INTERN	ATION
SOFTEN       ARCTEX $n^2 2$ JOINT PROJECT         DYE       PAD DYE					
DYE     PAD DYE       DRY ON       PEGG     STRAIGHTEN       SLIT       CUT OFF     TUBETEX       STENTER       CUT OFF     TUBETEX       STENTER       ROLL/EXAMINE       FINISH ON       TUBETEX     CALLENDER       FLAT FOLD       HUNT &       ARBACH       Weight       Size       Pee       Weight       Size       V10-3       Size       V20-3       Size       V20-7 <td>BLEACH -</td> <td>men at</td> <td>ี่ ม</td> <td>SHIDTEFORCO</td> <td>N TOR</td>	BLEACH -	men at	ี่ ม	SHIDTEFORCO	N TOR
DRY ON         PEGG       STRAIGHTEN       SLIT         CUT OFF       TUBETEX       STENTER         PLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER         TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         PWeight       Size       Pce         Weight       Size       OUALITY CHECKS         PWeight       Size       Pce         V / 0-3       25/2 / 25/9       17 V / 3-9         V / 0-3       24// -26/2 / 201       FASTNESS         V / 1-4       26/2 / 273       18 V / 0-5         V / 1-5       26/2 - 26/2 / 201       Picea       cpi         V / 1-4       26/2 - 26/2 / 201       Picea       cpi       wpi         V / 1-5       26/2 - 26/2 / 201       Picea       cpi       wpi       Width       Kn.m/c       Di         V / 1-5       26/2 - 26/2 / 201       Picea       cpi       wpi       Width       Kn.m/c       Di         V / 1-5       26/2 - 26/2 / 201       Picea       cpi       wpi       Width       Kn.m/c       Di         V / 1-5       26/2 - 26/2 / 201       Picea       c	SOFTEN V	MICIEY N	×.	IOINT PROJECT	
DRY ON         PEGG       STRAIGHTEN       SLIT         CUT OFF       TUBETEX       STENTER         @		-	a in ta		
PEGG       ✓       STRAIGHTEN       SLIT         CUT OFF       TUBETEX       STENTER         FLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER         TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         Weight       Size       Pce         Weight       Size       QUALITY CHECKS         Weight       Size       QUALITY CHECKS         VI-8       28(1-36/267)       16V 1/3-10         VI-8       28(1-36/267)       16V 1/3-10         VI-9       28(2-72/267)       16V 1/3-10         VI-9-3       28(2-72/267)       16V 1/3-10         VI-9-3       28(2-72/267)       17V 1/3-10         VI-9-3       28(2-72/267)       18V 1/0-5         VI-9-3       28(2-72/27)       18V 1/0-5         VI-9-3       28(2-72/27)       28(2-72/267)         VI-9-3       28(2-72/27)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267) <td>DYE PAD DYE</td> <td></td> <td></td> <td></td> <td></td>	DYE PAD DYE				
PEGG       ✓       STRAIGHTEN       SLIT         CUT OFF       TUBETEX       STENTER         FLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER         TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         Weight       Size       Pce         Weight       Size       QUALITY CHECKS         Weight       Size       QUALITY CHECKS         VI-8       28(1-36/267)       16V 1/3-10         VI-8       28(1-36/267)       16V 1/3-10         VI-9       28(2-72/267)       16V 1/3-10         VI-9-3       28(2-72/267)       16V 1/3-10         VI-9-3       28(2-72/267)       17V 1/3-10         VI-9-3       28(2-72/267)       18V 1/0-5         VI-9-3       28(2-72/27)       18V 1/0-5         VI-9-3       28(2-72/27)       28(2-72/267)         VI-9-3       28(2-72/27)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267)         VI-9-3       28(2-72/267)       28(2-72/267) <td></td> <td></td> <td></td> <td></td> <td></td>					
CUT OFF       TUBETEX       STENTER         FINISH ON       FLEISSNER       ROLL/EXAMINE         TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       HUNT &         MOSCROP       OUALITY CHECKS         Weight       Size       OUALITY CHECKS         VII-8       28/1-36/259       16/13/20       24/1-28/357         YII-8       28/1-36/259       17/13/9       24/2-51/20/27       FASTNESS         YII-8       28/1-36/273       18/10/5       28/2/25/20       FASTNESS       Gasp         YII-8       28/1-36/273       18/10/5       28/2/25/20       FASTNESS       Gasp       J         YII-8       28/1-36/273       18/10/5       28/2/25/20       FASTNESS       Gasp       J         YII-8       28/1-36/273       18/10/5       28/2/25/20       FASTNESS       Gasp       J         YII-9       28/2/20       23/20       24/20       SI       J       J       J         YIO-9       28/1/23/2       29/20       SI       J       J       J       J       J       J       J       J       J       J       J       J       J       J       J       J       J	DRY ON				
CUT OFF       TUBETEX       STENTER       "C         FLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       Image: Construction of the state of th	PEGG STRAIGHTEN	SLIT			
CUT OFF       IOBETEX       ROLL/EXAMINE         FLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       INNOSCROP       QUALITY CHECKS         Weight       Size       Pce       Weight       Size         VII-8       28/I-36/259       16V I/3-9       24/J - 28/354       SHADE       Innov         VII-8       28/I-36/259       17V I/3-9       24/J - 28/354       FASTNESS       Innov       Innov         VII-8       28/I-36/259       17V I/3-9       24/J - 32/354       FASTNESS       Innov       Innov <td></td> <td></td> <td></td> <td></td> <td></td>					
FLEISSNER       ROLL/EXAMINE         FINISH ON       TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       Image: Construction of the state of the	CUT OFF TUBETEX	STENTER			
FINISH ON         TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         *       Weight       Size       Pce       Weight       Size         *       Weight       Size       Pce       Weight       Size       OUALITY CHECKS         *       I/1-3       28/1-36/259       17/13-12       24/1-98/354       SHADE       Factor         *       I/1-3       28/2-72/259       17/13-12       24/1-98/354       FASTNESS       Fastness         *       I/1-3       28/2-72/259       17/13-12       24/2-72/200       Fastness       Fastness         *       I/1-3       28/2-72/23       20/13-6       24/2-72/200       Fastness       Fastness       Fastness         *       I/1-3       28/2-72/23       20/13-6       91/2-56/354       Fastness					
TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         9       Weight       Size       Pce       Weight       Size       OUALITY CHECKS         9       Weight       Size       Pce       Weight       Size       OUALITY CHECKS         1       VII-8       28/1-36/259       16/1/3-9       24/1-36/364       SHADE       Cos         1       VII-8       28/1-36/259       17/1/3-9       24/2-56/364       SHADE       Cos         2       I-2-3       28/1-36/259       17/1/3-9       24/2-56/364       SHADE       Cos         2       I-2-3       28/1-36/272       25/259       I/1/26/26/364       SHADE       Cos         3       II-6       28/1-36/272       20/13-9       21/2-56/364       Cos       I/1/26/26/27         5       V/2-7       28/2-72/262       20/13-9       SHADE       Cos       I/1/26/26/27         6       V/2-7       28/2-72/262       28       I/1/26/26/23       I/1/26/26/23       I/1/26/26/23         6       V/2-7       28/1-36/30/26       21       I/1/26/26/23       I/1/26/26/23       I/1/26/26/23         9       V/0-9       28/1-36/30/26	FLEISSNER				
TUBETEX       CALLENDER       FLAT FOLD         HUNT &       ARBACH       OUALITY CHECKS         9       Weight       Size       Pce       Weight       Size       OUALITY CHECKS         9       Weight       Size       Pce       Weight       Size       OUALITY CHECKS         1       VII-8       28/1-36/259       16/1/3-9       24/1-36/364       SHADE       Cos         1       VII-8       28/1-36/259       17/1/3-9       24/2-56/364       SHADE       Cos         2       I-2-3       28/1-36/259       17/1/3-9       24/2-56/364       SHADE       Cos         2       I-2-3       28/1-36/272       25/259       I/1/26/26/364       SHADE       Cos         3       II-6       28/1-36/272       20/13-9       21/2-56/364       Cos       I/1/26/26/27         5       V/2-7       28/2-72/262       20/13-9       SHADE       Cos       I/1/26/26/27         6       V/2-7       28/2-72/262       28       I/1/26/26/23       I/1/26/26/23       I/1/26/26/23         6       V/2-7       28/1-36/30/26       21       I/1/26/26/23       I/1/26/26/23       I/1/26/26/23         9       V/0-9       28/1-36/30/26	FINISH ON	1			
HUNT &       ARBACH         MOSCROP       OUALITY CHECKS         e       Weight       Size       OUALITY CHECKS         I V [] 8 $28/1.36/259$ 16 / 13.9 $24/1.98/354$ SHADE       I.C.S.         I V [] 8 $28/1.36/259$ 16 / 13.9 $24/1.98/354$ SHADE       I.C.S.         I V [] 8 $28/1.36/259$ 17 / 13.9 $24/1.98/354$ SHADE       I.C.S.         I V [] 8 $28/1.36/297$ 18 / 10.5 $28/272/501$ FASTNESS       I.S.S.         V [] 9 $29/1.36/297$ 18 / 10.5 $28/272/501$ FASTNESS       I.S.S.         V [] 9 $28/1.36/297$ 18 / 10.5 $28/272/501$ FASTNESS       I.S.S.         V [] 0.7 $38/2.92/273$ 20 / 13.6 $91/256/350$ FASTNESS       I.S.S.       I.S.S.         SV [0.977 $38/2.92/273$ 20 / 13.6 $91/256/350$ I.S.G.       I.S.G.       I.S.G.       I.S.G.         SV [0.92 $28/1.92/273$ 20 / 13.6 $91/256/350$ I.S.G.       I.S.G.       I.S.G.       I.S.G.         SV [0.92 $28/1.92/273$ 20 / 13.6 $91/256/3506/255$ I.S.G.       I.		FLAT FOLD			
MOSCROP       QUALITY CHECKS		5			
e       Weight       Size       QUALITY CHECKS         1 $1/1 \cdot 8$ $28/1 \cdot 36/259$ $16^{\circ} 1/3 \cdot 3$ $24/1 \cdot 28/354$ SHADE $(a \cdot 3)$ 1 $1/1 \cdot 8$ $28/1 \cdot 36/259$ $17^{\circ} 1/3 \cdot 9$ $24/1 \cdot 28/354$ FASTNESS $(a \cdot 5)$ 2/1/2 $32/2 \cdot 52/259$ $17^{\circ} 1/3 \cdot 9$ $24/2 \cdot 56/352$ FASTNESS $(a \cdot 5)$ 2/1/3 $28/2 \cdot 52/259$ $17^{\circ} 1/3 \cdot 9$ $24/2 \cdot 56/352$ FASTNESS $(a \cdot 5)$ 3/1/3 $28/2 \cdot 52/252$ $18^{\circ} 1/9 \cdot 52/252$ $50/252/50/252$ $50/252/52/252$ 3/1/3 \cdot 6 $24/2 \cdot 58/252/252$ $20^{\circ} 1/3 \cdot 6$ $84/2 \cdot 58/252/252$ $16^{\circ} 1/3 \cdot 52/252/252$ 8/1/3 \cdot 7 $34/2 \cdot 56/306/255$ $16^{\circ} 1/3 \cdot 52/252/252$ $16^{\circ} 1/3 \cdot 52/252/252/252/252/252/252/252/252/252/$	Hollin a				
B       Weight       Size	The second	Size		TY CHECKS	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	e weight Size	H/1-28/354- SHAD		f.An	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	11 0 0 11 11 12 12 0 0	42-56/33 FAST	NESS (ass	-01.	
N 16-8       24/1-26/291       199/10-5       920/231516       1000         6V 10-7       260-72/223       20/13-6       94/256/354       1000         6V 15-5       242 50/291       21       1000       1000         6V 15-5       242 50/291       21       1000       1000         6V 15-5       242 50/291       21       1000       1000         8V 10-9       261-36/266       23       1000       1000         9V 10-9       261-36/266       23       1000       1000         9V 10-9       261-36/266       23       1000       1000         9V 10-9       261-36/266       23       1000       1000       1000         9V 10-9       261-36/266       25       1000       1000       1000       1000         9V 10-9       261-36/267       28       1000       1000       1000       1000       1000         11/1-98/292       27       1000       1000       1000       1000       1000       1000         21 13-6       34/1-36/321       28       1000       1000       1000       1000       1000         21 13-6       34/1-36/321       28       1000       10000       1000 </td <td>N/11.8 28/1-36/273 18 10.5 5</td> <td>8/272/301 Piece</td> <td>l cni' wbi</td> <td>Width Kn.m/c</td> <td>Dia.</td>	N/11.8 28/1-36/273 18 10.5 5	8/272/301 Piece	l cni' wbi	Width Kn.m/c	Dia.
0     15.5     242     1     1     1     1       1     10.9     281-36/287     22     1     1     1       1     10.9     281-36/206     23     1     1     1       1     10.9     281-36/206     25     1     1     1       0     15.5     341-28/206     25     1     1     1       1     11.6     382-72/267     28     1     1       2     15.6     341-38/221     27     1     1       3     1/3.6     341-38/221     27     1     1       3     1/3.6     341-36/31     28     1     1       4     10.5     381-36/31     29     1     1       5     13.4     343-33     30     1     1	W / 6'6 24/ 00/07/	56-13/210			
$0'/3^{-3}$ $24'/3^{-3}$ $28//3^{-3}$ $28//3^{-3}$ $28//3^{-3}$ $28//3^{-3}$ $28//3^{-3}$ $28//3^{-3}$ $28//3^{-3}$ $0'/3^{-$		4256/354			
1/0-7       35/-36/20/       23         8//0-7       34/-32/306       23         9//0-2       26/-36/30/       24         0//0-2       26/-36/30/       24         0//0-2       26/-36/30/       24         0//0-2       26/-36/30/       25         11//0-2       26/-36/20/       25         11//0-2       36/-36/20/       25         21/0-3       36/-36/30/       27         31/0-6       34/-36/32/       27         31/0-6       34/-36/32/       28         21/0-5       36/-36/316       29         51//3-4       54/-36/316       29         51//3-4       54/-38/337       30	15.5 078 50/81				
0/13:7       04/13:10/30/24       OTHER TESTS (MERIDIAN - INTERNAT         0/13:5       34/12:56/306       25       OTHER TESTS (MERIDIAN - INTERNAT         1/11:6       38/12:12/367       28       OTHER TESTS (MERIDIAN - INTERNAT         21:13:6       34/12:36/321       27       OTHER TESTS (MERIDIAN - INTERNAT         31:13:6       34/12:36/321       28       OTHER TESTS (MERIDIAN - INTERNAT         41/10:5       38/1:36/316       29       OTHER TESTS (MERIDIAN - INTERNAT         51/13:4       30       OTHER TESTS (MERIDIAN - INTERNAT	V/U-7 601 3012-01				
00/5:5       01/1:50	OVAT OHLAD 24		CO TECTO ANASES	KIX	
1v 1/.6       38/3-72/367       26         2v 13.6       31/2-36/321       27         3v 13.6       31/2-36/321       28         4v 10.5       38/1-36/316       29         5v 13.4       30		OTH	ER TESTS WEEK	$\mathbf{DIAN} = \mathbf{INTER}$	NATIO
2 13.6 34/-38/52/ 27 3 13.6 34/236/32/ 28 4 10.5 28/-36/316 29 5 13.4 24/-28/337 30				STITUTE FOR CO	OTTON
5 1.9 5 38/1.36/316 29 5 1.9.4 54/1-28/33 7 30	2 13.6 841-28/321 27				
5 13.4 24 -28 33 7 30	3 13.6 24/2 56/321 28			JEMAI PROJECT	
5 V 13 14 04/ - al 23 7	4110 00 00 000			· · · ·	
	5 13.4 84/1-28/337 30			3.15	
COMMENTS C L	COMMENTS		۷	1	+ +
Den -2 metre			Den m	-2 ne	ne
ROPEI PLN'S 1-10. I col estes to	KOREL PLNS	1-10	1	01	L.
- of polyestes to	18 <del>그는</del> 가슴 정조님	1.51	of pol	yester	FO
Roped PCNOB 11-20. mancale start/.	0 0 2 400 4	00	0	0	12
COMMENTS Rope 1 Pc N°s 1-10. Sew n 2 metre Rope 2 Pc N°S 11-20. Spolyestes to Rope 2 Pc N°S 11-20. mancale start/	Koped ICN 9 1	- 20	nd cal	e stalt	1 7

BLUE TS. 6 - 80 4 DATE: SHADE: CUSTOMER/LOT NO: JIC K& WOTH THIES MACHINE CAPACITY NO MACHINE CAPACITY: LIT METRES: WEIGHT: 195 K. NO. OF PIECES: 1500 TRIFI TIC 2K. GONTAVAN W. VISCAVINC RAISE TO THE BOIL IN JOMINS. 1. SCOUR. LYOCL HEB Κ. К. SODA ASH. RAISE TO THE BOIL, BOIL FOR JOMINS. SHOW. MINS. 20MINS. AT 60°C. WASH OFF WELL. o<sub>C</sub>, К. START AT C. BOIL FOR WASH OFF WELL. DYE (METHOD) START AT 50°C WITH MATEXIL PAL ADD DE OWER TO RUN FOR 20MINS RAISE TO 80°C TAKING 20MINS RUN FOR 20 MINS ADD HEK GLANBERS OVER 20MINS RUN 20MINS ADD HEK GLAUBERS OVER 20MINS RUN 20MINS ADD REMAINING SEX GRAUBE OVER 20MING BUN FOR JOHING ADD 8K BICARBONIATE OFR 10 RUN FOR KEIMING ADD SODAASH IN TWO RARTS OVER 20MING RUN HE MINS SHOW PLEASE FOLLOW METHODEXAUTY - SPECIAL TRAT SHADE PASSED. G/L HEMICALS **3** K. RESIST SALT. ACK. SALT **5**K. GLAUBERS BATH Off BKARBONATE ADDITIONS ANOT TOTAL % DYESTAUFF DYE 2 Procion Blue 2001 ams HEG SOFTEN 5. BACKSCOUP: ALCAMINE 544 К. 40 SCOUREX R BRADSYN PC12 Κ. MYSTOLUBE TX RAISE TO THE BCIL, BOIL FOR Ka 20 MINS. AT 20°C PH 5.5 18 ..... 5.7 WASH OFF WELL.

LOT Nº KQ LOT4 (THIRS ROTOSTREAH)

	TARGET FINISHED	AI	RTEX		PEG	G.	CALENDER	SAM	Pung
VARIANT	WIJTH (ROWJEJ)	Frank Wijth	COURSES	FABRIC WIJTH	Courses 3 CH.	FABRIC	FABRIC WIDTH	COURSES 3CM.	FABRIC
28/1-36/259 28/2-72/259 28/2-72/259 28/1-36/273 24/1-28/291 28/2-72/273 24/2-56/291 28/1-36/287 24/1-28/306 28/1-36/306 28/2-72/287 24/2-56/306 28/2-72/287 24/1-28/327 24/1-28/327 24/1-28/337 24/1-28/337 24/1-28/337 24/1-28/337 24/1-28/337 28/2-72/301 28/2-72/316	74 76 77 79 80 82 83 83 84 85 7 88 82 83 83 84 85 7 88 89 0	アテアアアアアを認知る をちちちんしん ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	57 57 52 51 53 54 48 48 55 0 4 3 54 44 3 37 3 5 4 43 43 43 43 43 43 43 43 43 43 43 43 4	72 73 73 73 74 75 77 78 80 79 80 81 81 84 44 38 88 88	3 5 5 4 5 6 5 6 4 8 7 5 3 3 0 4 8 0 4 0 4 3 4 4 4 3 4 4 4 4 4 4 4 4 4 4 4	73 73 76 78 78 79 80 81 81 82 83 83 84 66 77 79	7477777990122334445788890	54 54 51 50 50 7 4 4 3 5 5 5 5 5 7 4 4 3 5 5 5 5 5 7 4 4 3 5 5 7 4 4 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	737677727792912223232445788890
24/2:56/354	93	93	39	90	38	92	93	37	93

COMMENTS Each piece in this dyelot had to be reduced in length from 75 metres to 60 metres to avoid tangling.

lo. Pieces	20		F/	ABRIC SING	The J	eser	SPEC N	o	
VIDTH	vaeion	S LSE	E QUE TI	RIMS ,			SPEC N	o.	
/eight	25	5 kg				2 23.5			
Warden Maria	1001	~ r	1		I.EG	(N	0 00	LOITIG	$\overline{\langle}$
HADE	22 4 Harriston	Ploc		1. X . M					<u>.</u>
REPARATION		Г	- WIN	CH ) IE	-	SPECIAL	INSTRU	CHONS	
WINCH	FLEIS	SNER L				1		airco	ATIO
BLEACH -		150	FTENT		N.	NEP.DI	AN -	INTER	VALUE
SCOUR	$\checkmark$	100					TITUTE	FORC	OTTOP
고객 말을			A	IRTEX N	12	N.	MIT PF	OJECT	
DYE		INE L				19,000			
RY ON						1	7		
	and the second		<u> </u>						
PEGG	STRA	GHTEN	SLIT				2.2		
성의 가격을 즐	<u>ili</u> de la constante de la co					1			
CUT OFF	TUBE		STENT	ER @				,	
24-18-19 G	FLEIS	SNER T	BOLL						
	FLEIO	SIGEN	nore	EXAMINE					
	FLEID			EXAMINE					
				- <u>\</u>					
			FLAT	- <u>\</u>					
				- <u>\</u>				2	
TUBETEX	CALLI		FLAT	- <u>\</u>					
TUBETEX HUNT & MOSCROP	CALLI	ENDER [ CH [ Weight	FLAT I	FOLD		JALITY	CHECKS		
TUBETEX	CALLI ARBA ARBA 26/359 16		FLAT	- <u>\</u>		JALITY	CHECKS		-
TUBETEX	CALLI ARBA ARBA 26/259 16 36/259 17 36/873 18	ENDER [ CH [ Veight 73.9 73.9	FLAT I	FOLD SHADE FASTNES	SS			Ko m/c	Dia
TUBETEX [ HUNT & MOSCROP Veight Size (1-8 とっ 25)- いる こう/- いる こう/- 17-0 気い/	CALLI ARBA 26/259 16 36/259 17 36/273 18 36/273 18 36/29/ 19	ENDER [ CH [ /3.9 /0.5 /0.5	Size QHU 26/354	FOLD	SS		CHECKS	Kn.m/c	Dia.
TUBETEX	CALLI ARBA ARBA 26/259 16 36/259 17 36/873 18	ENDER [ CH [ Veight 73.9 73.9	FLAT I	FOLD SHADE FASTNES	SS			Kn.m/c	Dia.
TUBETEX HUNT & MOSCROP Veight Size (1-8 とっ 25)- いるこう 35/- いる 35/- 17-0 354/	CALLI ARBA 36/259 16 36/259 17 36/873 18 36/873 18 36/873 20 36/891 21 36/87 22	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES	SS			Kn.m/c	Dia.
TUBETEX	CALLI ARBA 36/259 16 36/259 17 36/873 18 8/29/ 19 72/273 20 56/29/ 21 36/29/ 21 36/29/ 21 36/206 23	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES	SS			Kn.m/c	Dia.
TUBETEX	CALLI ARBA 36/259 16 36/259 16 36/273 18 36/273 18 36/273 20 36/273 20 36/291 21 36/287 22 28/206 23 26/201 24	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES	SS cpi w			Kn.m/c	Dia.
TUBETEX         HUNT &           HUNT &         MOSCROP           Veight         Size           1/.8 bc         2 s/-           2.3         2 6/2           1.8         2 s/-           1.7         2 s/-           2.7         2 8/2-           5.5         2 s/-           6.4         2 s/-           9.5         2 s/-           6.2         2 s/-           9.4         2 s/-           9.4         2 s/-           9.5         2 s/-           9.4         2 s/-           9.4         2 s/-           9.5         3 s/-           9.4         2 s/-           9.5         3 s/-           9.4         2 s/-	CALLI ARBA 36/259 16 36/259 17 36/873 18 8/29/ 19 72/273 20 56/29/ 21 36/29/ 21 36/29/ 21 36/206 23	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX         HUNT &           HUNT &         MOSCROP           Veight         Size           1/.8 bc         25/-           2.3         26/2           1.8         25/-           1.7         24/-           3.7         26/2           5.5         24/-           5.5         24/-           9.4         25/-           9.4         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-           1.9         25/-	CALLI ARBA 36/259 16 32/259 17 36/373 18 36/373 18 36/371 19 72/373 20 36/371 21 36/371 21 36/371 21 36/371 21 36/371 21 36/306 23 36/306 25	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX	CALLI ARBA ARBA 36/259 16 32/259 16 32/259 17 36/373 18 36/373 18 36/373 18 36/373 20 36/371 21 36/371 21 36/391 21 36/391 21 36/391 21 36/391 26 36/391 27 36/391 28	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX       HUNT &       MOSCROP       Veight     Size       1.8 & 25/-       2.3     25/-       2.4     25/-       2.7     25/2       2.7     25/2       2.7     25/2       2.7     25/2       2.7     25/2       2.7     25/2       2.7     25/2       2.7     25/2       2.7     25/2       2.6     25/2       1.5     24/2       1.6     25/2       1.3.6     24/2	CALLI ARBA ARBA 36/259 16 32/259 16 32/259 17 36/373 18 72/391 19 72/391 21 36/291 21 36/291 21 36/291 21 36/291 21 36/291 22 28/306 25 22/206 25 20/206 25 20/206 25 20/206 25 20/206 25 20/206 25 20/206 25	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX       HUNT &       MOSCROP       Veight     Size       1/8     25/-       2.3     25/-       1.8     25/-       1.8     25/-       1.8     25/-       1.7     26/-       1.7     26/-       1.7     26/-       1.7     26/-       1.7     26/-       1.7     26/-       1.7     26/-       1.7     26/-       1.7     26/-       1.6     25/-       1.6     25/-       1.6     25/-       1.6     25/-       1.6     25/-       1.6     25/-       1.6     25/-       1.6     25/-       1.6     24/-       1.6     24/-       1.6     24/-       1.6     24/-       1.6     24/-	CALLI ARBA ARBA 36/259 16 32/259 16 32/259 17 36/373 18 36/373 18 36/373 18 36/373 20 36/371 21 36/371 21 36/391 21 36/391 21 36/391 21 36/391 26 36/391 27 36/391 28	ENDER [ CH [ /3.9 /0.5 /0.5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX HUNT & MOSCROP Veight Size (1.8 & 25)- (2.3 2.6/2 (1.8 2.5/- (2.3 2.6/2 (1.6 2.5/- (2.4 2.6/2 (1.6 2.5/2) (1.6 2.5/2 (1.6 2.5/2) (1.6 2.5/2 (1.6 2.5/2) (1.6 2.5/2) (1.6 2.5/2 (1.6 2.5/2) (1.6 2.5/2) (1.	CALLI ARBA 34/259 16 34/259 16 32/259 17 36/373 18 3/29/ 19 72/373 20 32/39/ 21 32/257 22 28/306 23 34/306 25 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 30 26/337 30	ENDER [ CH [ 13:2 13:2 10:5 10:5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX       HUNT &       MOSCROP       Veight     Size       1/8     25/-       2:3     26/2       17.0     84/-       17.0     84/-       17.0     84/-       17.0     84/-       17.0     84/-       17.0     84/-       17.0     84/-       10.4     28/-       10.4     28/-       15.5     34/0       16.4     28/-       13.6     34/-       13.4     28/-       13.4     28/-       13.4     28/-       13.4     28/-       13.4     24/-	CALLI ARBA ARBA 36/259 16 32/259 16 32/259 17 36/373 18 72/391 19 72/391 21 36/291 21 36/291 21 36/291 21 36/291 21 36/291 22 28/306 25 22/206 25 20/206 25 20/206 25 20/206 25 20/206 25 20/206 25 20/206 25	ENDER [ CH [ 13:2 13:2 10:5 10:5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w			Kn.m/c	Dia.
TUBETEX HUNT & MOSCROP Veight Size (1-8 & 25)- (2-3 28/2 (2-3 28/2 (2-3 28/2 (2-7 28/2 (	CALLI ARBA 34/259 16 34/259 16 32/259 17 36/373 18 3/29/ 19 72/373 20 32/39/ 21 32/257 22 28/306 23 34/306 25 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 26 22/357 30 26/337 30	ENDER [ CH [ 13.2 13.2 10.5 10.5	FLAT I	FOLD SHADE FASTNES Piece	SS cpi w	vpi W			Dia.

	WINGH
SHADE; BLUE IIC.	DATE: 18- 6-80
CUSTOMER/LOT NO: K2 LOTS FAB	RIC: 55. M/C. NO: 5
WEIGHT: 255 KILOS. NO. P	IECES: TICTRIAL M/C. CAPACITY LITRES
1. SCOUR: K. DYSOL K. SANDOPAN DTCL K. SOVATEX PN/O K. SODA ASH K. VISCAMINCA	2/2.K. CONTAVAN HW. 8 K. CAUSTIC LIQ. 0/2K. HYDROGEN PEROXIDE. RAISE TO THE BOIL IN JOMINS. BOIL FOR JOMINS.SHOW. NEUTRALIZE WITH 4 K. ACETIC ACLD. 20MINS. AT 60°C. WASH OFF WELL.
RESE TO THE BOLL, BOIL FOR MINS. WASH OFF WELL. NEUTRALIZE WITH ACETIC ACID.	
RON FOR JOURNES. KAUSE TO 80 ADD 100K. SALT OVER 20MINE. OVER. 20MINS RUN FOR 30 MINES P	WITH MATTEXIL PAL ADD DIE ONER ISMINS C TRIKING ZONING RUN FOR JONINS RUN FOR JONING ADD ISOK SALT DD REMAINING IGHIK SALT OVER ZONING
RUN FOR BOMINS HIDD ZOK BUN FOR BOMINS ADD SOLDA BOMINS RUN FOR BOMINS S * PLEASE FOLLOW METHOD F	BUARBONATE, DESOLVED, OVER ESMINS ASM, DISSIOLVED, IN: TWO PRES. OVER SHOW EXACTLY - TRIAL #
CHEMICALS. 6 K. RESIST SALT MA LIN K. SALT. K. SODA ASH. 23 K. CAUSTIC. BICA K. GLAUBERS.	
K. SANDOPUR. DK. K. LYOGEN MS. K. SFA.	PODITIONS
DYESTUFF.	1 2 ADDITIONS 5 TOTAL TOTAL
5100 grs. Procion Blue.	
· · ·	
4. BACKSCOUR. 22. K. SCOUREXR. K. TRIAMINE PR.	5. SOFTEN. K. ALCAMINE 544 K. BRADSYN. PC12 K. MYSTOLUBE TX.
K. RAISE TO THE BOIL, BOIL FOR MINS WASH OFF WELL.	20 MINS. AT 20°C PH.55

# LOT Nº K2. LOT 5 (WINCH)

	TARGET FINISHED	AIRTEX			PEGG		CALENDER	SAMPHING	
VARIANT	шэтн (естэс)	Frank Width	Courses 3 cm.	FABRIC WIJTH	Courses 3 CH.	FABRIC WIJTH	FABRIC. WIDTH	Courses 3cm.	FABR WIJT
28/1-36/259 28/2-72/259 28/2-72/253 28/1-36/273 24/1-28/291 28/2-72/273 24/2-56/291 28/1-36/206 28/2-72/287 24/1-28/306 28/2-72/287 24/1-28/321 28/1-36/316 24/1-28/337 24/1-28/354	77 77 79 79 80 81 82 83 83 84 84 85 87	77 77 77 781 81 81 81 81 88 8 8 8 8 8 8	57 57 51 49 54 48 50 44 44 41 43 7 39 55	4 6 73 72 75 76 78 78 78 79 80 76 82 82	58 58 51 53 51 53 51 53 51 48 47 <sup>1</sup> 45/44 450 43 43/44 40 41 37/38	73 76 76 78 79 80 81 82 83 83 84 86	74 76 77 77 79 90 51 22 23 33 84 84 85 87	56 57 51 50 52 5 50 52 5 48 47 44 47 48 3 30 40/41 37	ア316777828012141828333486
24/2-56/337 28/2-72/301 28/2-72/316 24/2-56/356	88 90	89 89 92 92	40 43 42 35	83 81た 87た 87	40 45/46 42 38	87 87 89 92	88 88 905 93	40 44/45 41 37/38	87 865 88 92