

SITRA's SERVICES FOR THE KNITTING INDUSTRY



THE SOUTH INDIA TEXTILE RESEARCH ASSOCIATION (SITRA)

13/37, Avinashi Road, Aerodrome Post

Coimbatore- 641014

General Testing Facilities

Knitting Facilities:

The department has single jersey knitting machines of the following specifications:

- 16 inches diameter, 20 gauge, 24 feeders, Yarn count : 15s to below 20s
- 16 inches diameter, 24 gauge, 21 feeders, Yarn count : above 20s to 40s
- 26 inches diameter, 28 gauge, 30 feeders, Yarn count : above 40s
- Single Feeder Knitting Machine (3.5 inches diameter), Yarn count : 15s to 100s

The wing has been conducting subjective assessment of the running performance of yarns during knitting and also inspecting the grey fabric appearance on parameters like thick places, thin places, long thin places, long thick places, slubs and contaminations by "SITRA method" as well on a "4 Point System of Inspection" method.

Sewability :

Sewability analysis is done for evaluating the performance of sewing threads / Needles.

Re-engineering:

Warp Knitted Fabric Re-engineering	Weft Knitted Fabric Re-engineering	Woven Fabric Re-engineering
Courses per cm	Course per Inch	Ends per inch
Wales per cm	Wales per Inch	Picks per inch
GSM	GSM	GSM
Yarn count	Yarn count	Warp/weft yarn count
Run-in per rack	Loop length	Crimp%
Design analysis	Probable no. of needles	Weight / linear meter
Yarn threading-in	Knitting machine gauge	Design analysis
Type of yarn	Knitting machine dia	Yarn drawing-in
Tubular width	Tubular width	Length and width
Elastomeric yarn %	Elastomeric yarn %	Fibre identification and blend analysis
Fibre identification and blend analysis	Fibre identification and blend analysis	
Weight / linear meter	Weight / linear meter	
Knitting machine gauge	Design analysis	

General Testing
Proportion of yarn Used by weight basis
Single and ply yarn twist
Spirality (before & after wash)
Shrinkage % (length & width) – Upto 20 washes
Extension and recovery % (before & after wash)
Subjective assessment of fabrics & garment
Bowness & skewness (before & after wash)

➤ We also re-engineer products like socks, tapes, elastic tapes, warp knitted agricultural /shade nets, circular warp knit, woven/knitted medical related products/garments (Orthopedic supports, non-implantables, bandages, etc), industrial fabrics (abrasives, filter fabrics, textile reinforced products) and other technical textile fabrics.

Analysis of any other product not listed above is also undertaken

Warping Machine

The department is also equipped with a “Karl Mayer” warping machine using which customer can estimate the warping performance of Yarns and their breakage with the speed limit upto Up to 1000 MPM during high speed warping. Customers interested in utilize this services may send 50 – 100 baby cones.



Warp Knitting

The division is also equipped with “Tricot” and “Raschel” warp knitting machines and their specifications are given below:

Machine Particulars	Tricot	Raschel
Machine make	Karl Mayer	Karl Mayer
Machine gauge	28	22
Machine width	130	138
No. of guide bars	3	7
Type of fabric	2 dimensional fabric with Pile option	3 dimensional fabric with 2mm to 12 mm thickness

Sampling orders of minimum 1000 Kgs can be executed and minimum 620 cheeses are required for the same.

Compression Stockings

The division has a compression stocking knitting machine having 4 ¾” diameter, 24gg/18gg, 4 system with three core-elastomeric yarn feeders. Using the above machine graduated compression stockings like, below knee, above knee, thigh high, panty hose, ankle support, knee cap, thigh support, wrist support, elbow support, etc. can be developed.

Testing

The division has a compression pressure measurement device for testing the compression of compressive stockings, ankle support, knee cap, thigh support, creep bandages and other tubular/open width bandages.

We have special sensing device in which the compression can be tested in standard dummy legs or in human beings.

Embroidery

The division is equipped with “Tajima” single head embroidery machine. The maximum limit of design is 30cm x 30cm.

To assess the yarn behavior and its breakage during embroidering.

Medical products like implant devices, bandages, etc can be developed in this machine. Entrepreneurs interested in development of these medical products can utilize the services of SITRA.

SITRA's SERVICES FOR THE KNITTING INDUSTRY



4 Colour Single Jersey Auto-striper

The weft knitting lab is also equipped with a 4 colour **single jersey auto-striper** knitting machine and the following specifications.

Mayer & Cie, 30 inches diameter, 24/28 gauge, 48 feeders, 4 track, with alternate elastomeric yarn feeder attachment

Parties interested in running the machine for their sampling as well as bulk orders can contact the head of the department



Training Programmes

- Management development programme
- Supervisory development programme
- Knitting and sewing machine operator training programme
- Knitting and sewing machinery maintenance training programme
- Process and quality control in knitting and garments
- Entrepreneurs development programme



Technical Consultancy

- Process optimization through quality / process control
- Work assignment study
- Machinery valuation
- Machinery residual life assessment
- Yarn quality performance study (indigenous and imported knitting machines)
- Technical feasibility study
- Techno-economic viability study
- New bankable project preparation etc.

**Customers sending samples
may furnish the following details**

Visiting Card / Company Name:
Address:
Contact Person :
Mobile No:
E-mail:
Test Required :

For more details, please contact:

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