RESIL
Science For Change

TECHNICAL TUESDAYS

TOPIC: Lycra & its characteristics

REF: TT/ Sep 2016/ WK 4

What is Lycra?

LYCRA® is a man-made elastic fiber invented and produced only by DuPont. It is INVISTA's trademark for a synthetic fabric material with elastic properties known generically as "spandex".

Lycra is commonly used in athletic or active clothing.

Characteristics of Lycra yarn:

- Heat: Sticks at 350-390F. Melts above 500F.

- Bleaches and solvents: Good resistance to oxidizing agents. Poor resistance to bleach.

- Acids and alkalis: Good resistance to acids and alkalis

- Abrasion: Good in diluted (weak) acids and bases, but found to degrade in strong acids & bases.

- Mildew, aging and sunlight: Excellent aging and mildew resistance. Good resistance to sunlight.

How is Lycra yarn incorporated in garments?

Lycra is ideally never applied in solitary, but is always combined with another fiber (or fibers), natural or man-made, depending upon the end application uses of the garment.

The type of fabric and its end use determines the amount and type of Lycra required to ensure optimum performance and aesthetics of the finished garment.

As little as 2% of Lycra is adequate to improve a fabric's movement, drape and shape retention, while fabric for high-performance garments such as swimwear and active sportswear may contain as much as 20-30% of Lycra. Weaving or knitting techniques, associated with the type fabric and the desired end use of the fabric, determines the application of Lycra in either a bare form or a covered yarn form.

Application/Uses of Lycra yarn:

Lycra yarn is widely applied for woven textile products such as:

- Apparels
- Socks & stockings
- Seamless garments
- Gloves
- Sweaters
- Swimwear
- Narrow fabrics
- Smocking
- Medical bandages
- Head bandages
- Wrist bands

Wishing you a great week ahead!

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