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TECHNICAL TUESDAYS

TOPIC: Calandering Process in textiles.

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What is Calendering Process?

Calendaring is the process of smoothing and compressing a textile material by passing a single continuous sheet of fabric through a number of pairs of heated rolls.

The rolls in combination are called calenders. Calender rolls are constructed of steel with a hardened surface, or steel covered with fiber.

Purpose of doing Calendering Process for textiles:

The fabric is then run through rollers that polish the surface and make the fabric smoother and more lustrous. Due to High temperatures and pressure the Fabrics that go through the calendering process feel thin, glossy and papery

Types of calandering Machine:

Nipco-Flex Calender:

The pressure application concept of this calender is different from the conventional calendering system.

The pressing roller consists of a rotating shell that is covered with a highly elastic plastic material named as RACOLAN.

The roller has fixed axels on which hydrostatic support elements are mounted that press the racolan shell against either steel or a cotton/paper roller.

The hydrostatic pressure is applied with oil and is adjustable according to width of the cloth. The NIPCO roller can be arranged in vertical position or in L shape with a hot steel roller at top and a cotton bowl in front of it.

The main advantages of NIPCO calender over a conventional calender are:

1. Attainment of very high pressure.
2. Adjustment of pressure line according to width of cloth.
3. No over load at the fabric selvedge.
4. Easy installation and removal of the rollers.

Felt Calender:

Felt calenders are mainly used for imparting lustre and smoothness to silk, rayon and cotton knitwear materials.

These work at low pressure and temperature than used for cotton.

The cloth is pressed between an endless felt blanket and a hot steel cylinder at a speed of 20 to 40 meters/minutes.

Wishing you a great week ahead!

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