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SYNCAST™

POLYAMIDE CALENDER ROLLS

SYNCAST™

TEXTILE FINISHING

SYNCAST Polyamide calender rolls from RHL are a state of the art solution for many calendaring and embossing applications. Excellent resistance to surface damage ensures minimum maintenance and a very long service life.

We can supply Syncast in the following forms:

- Syncast sleeves, ready for fitting
- Recovering of existing polyamide rolls
- Conversion of cotton or woollen paper rolls
- Complete new Syncast rolls

CONSTRUCTION

Syncast is a uniquely elastic, thermoplastic polymer that has been specially developed for calender rolls. Roll covers of up to 7m face length and up to 1.25m diameter can be manufactured by RHL utilising the largest centrifugal casting capacity in the industry.

Syncast roll covers are centrifugally cast guaranteeing perfect quality due to the exceptionally high revolving speed (2000rpm) utilised in the casting process. This high speed 'spin casting' ensures the expulsion of all air bubbles and impurities from the cover. Then natural atmospheric cooling of the cast polymer in the moulding process ensures the maximum reaction time, allowing longer molecules to form.

The optimised molecule length gives the Syncast calender roll cover its excellent elasticity and mark recovery, with minimum shape distortion. This results in excellent run-ability in the calender and maximum service life. Internal stresses are minimised in the Syncast calender roll cover as it is produced at temperatures below the melting point of the polymer. Syncast calender roll covers are finally fully annealed and ultrasonically checked, guaranteeing optimum quality and performance.





APPLICATIONS

- Calendering
- Woven and knitted natural fabrics
- Woven and knitted synthetic fabrics
- Non-wovens (thermobonding)
- Paper

OPERATIONAL BENEFITS

- No “washing in” required
- Highly resistant to surface marks, e.g. from selvedges, sewing seams, creases and knots etc.
- Most surface marks level out during operation
- Different material widths can be run without edge marking problems
- Resistant to most commonly used processing chemicals
- Syncast rolls can be re-machined several times and provide an excellent service life

EMBOSSING

- Woven and knitted natural fabrics
- Woven and knitted synthetic fabrics
- Non-wovens
- Paper
- Vinyl / imitation leathers
- Aluminium foils

SYNCAST SPECIFICATION

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| Syncast material | Polyamide PA6G |
| Colour | Natural |
| Hardness | 87° +/-1 Shore D |
| Maximum surface temperature of heated steel roll | 200-220°C |
| Maximum surface temperature of SYNCAST roll | 130°C |
| Maximum linear pressure | 350 kN/m |

QUALITY BENEFITS

- **Excellent smoothing effect**
- **Excellent glazing effect when used in conjunction with a highly polished steel roll**
- **Excellent densification of calendered cloth**
- **Running stability enables higher and more homogenous lustre at higher speeds**
- **Syncast produces excellent lustre/feel/matt effects when used in combination with cotton rolls**

