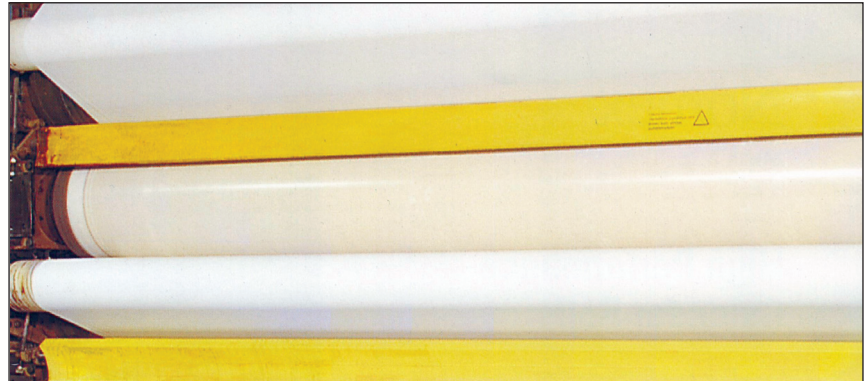


## **Nomex®**

### Nomex® High Temperature Calender Rolls

Nomex® calender rolls are the optimum performance roll cover solution for today's technical, high temperature calendaring applications.

Outstanding temperature resistance, excellent resistance to surface damage and resistance to high nip loads ensures minimum maintenance and a very long service life.



**RHL produce complete new Nomex® rolls or can refill existing filled rolls with Nomex® material. Nomex® can be resurfaced using standard equipment such as diamond tool, abrasive belt or stone grinding.**

### Applications:

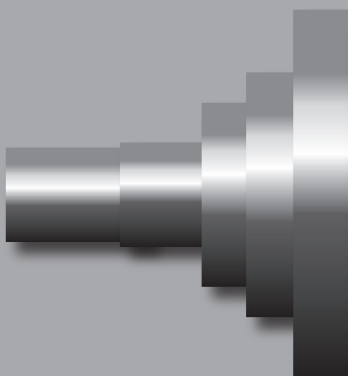
High temperature Supercalenders (e.g. for glassine papers, candy-wrap papers, release papers, condenser papers).

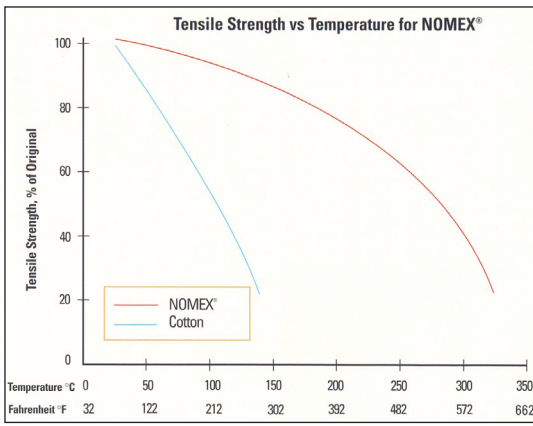
High temperature Textile Calenders (e.g. Glazing calenders, Friction calenders, Thermo-bonding calenders for non-woven).

High temperature / high speed Embossing Calenders

**\*DuPont approved** – “DuPont certify that we consider RHL to be fully technically capable to manufacture filled rolls with Nomex®. We therefore recommend this company as an excellent source for long lasting Nomex® calender rolls”.

DuPont de Nemours Int. SA Geneva, Switzerland

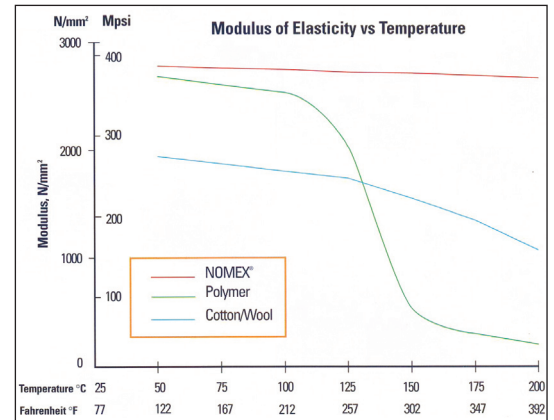




Nomex® is a ‘man-made’ fibre based material. The material has a rigid and regular (meta-aramid) molecular structure. Because of the strong structural linkages, Nomex® fibres are both chemically and thermally very stable and will not flow or melt even above 350°C. For this reason Nomex® is suited to high temperature calendaring where alternative roll cover materials would quickly break down.

This unique construction also gives Nomex® excellent marking resistance. Marking resistance and

recovery are closely related to Modulus of Elasticity (the ability of the material to rebound to its original shape after being dented). The Nomex® structure has a high modulus of elasticity, which is maintained at elevated temperatures.



## Operational Benefits:

- Outstanding temperature resistance, enabling the heated steel rolls to be run at up to 360°C
- Excellent mark resistance due to its high Modulus of Elasticity
- Outstanding service life. Typically a Nomex® roll will last 5-10 times the life of a normal fibre filled roll, leading to lower operating costs
- Nomex® can withstand high nip loads up to 450kN/m
- Nomex® can be filled on the same roll shafts used for conventional fibre filled rolls
- Lower risk in case of accidental surface damage (compared to polymer rolls) due to cover thickness
- Nomex® rolls have a regrind depth of typically 60-70mm compared to typically 6mm for Polymer rolls

## Quality benefits

- Positive gloss production (similar to fibre filled rolls)
- Excellent smoothing effect
- Superior lustrous finish on fabrics when used in combination with a highly polished steel roll.
- Excellent densification of calendered product
- Minimal dusting avoids contamination of calendered product

## Technical Specification

Nomex® Material - DuPont Nomex® E97 Sheet Structure	
Typical Hardness	87+/-1° Shore D
Maximum Linear Pressure	450 kN/m (2570 pli)
Maximum speed	1000 m/min
Maximum Surface Temperature of heated steel roll	360°C (680°F)
Maximum Surface Temperature of NOMEX® roll	200°C (392°F)