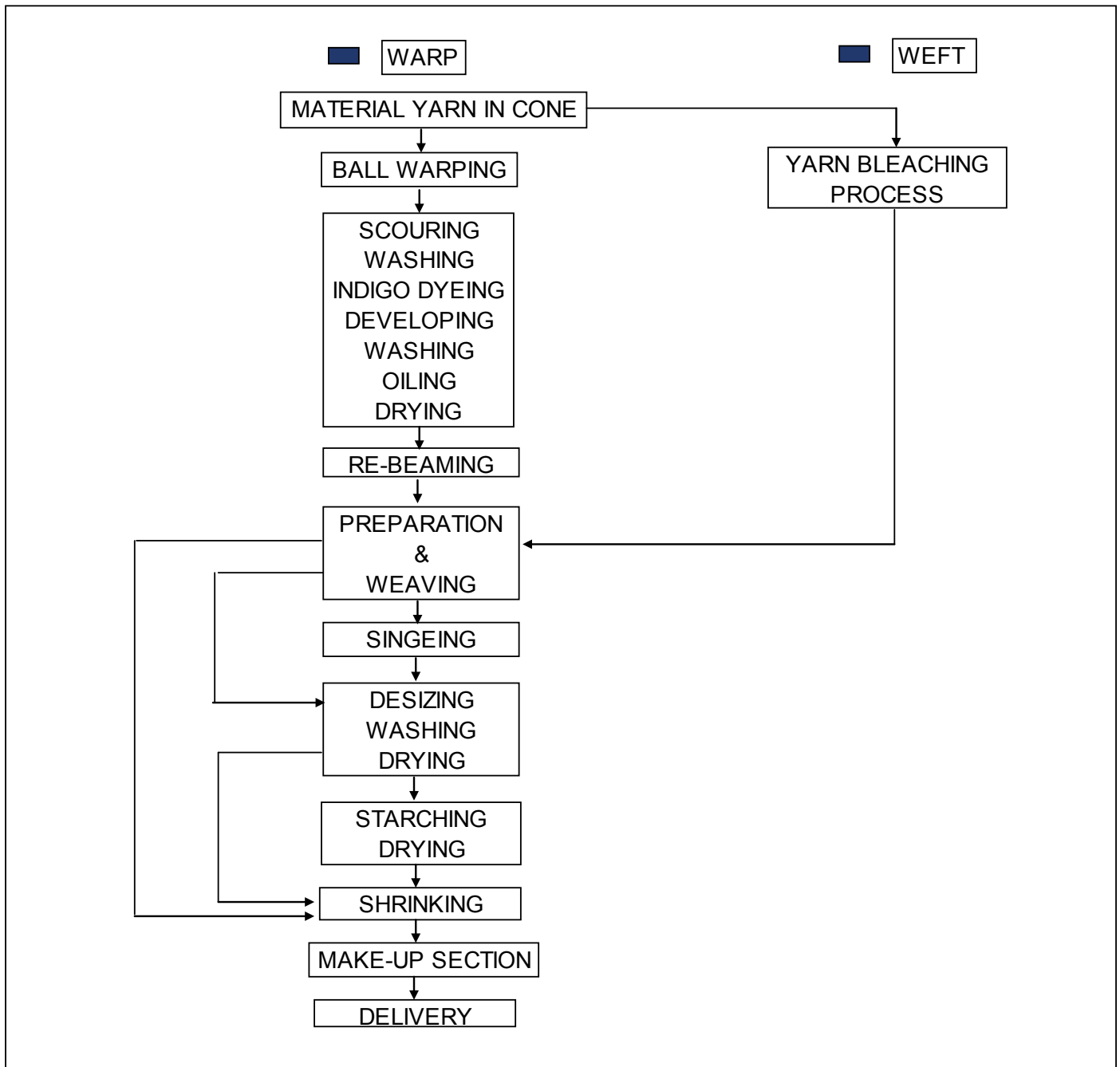
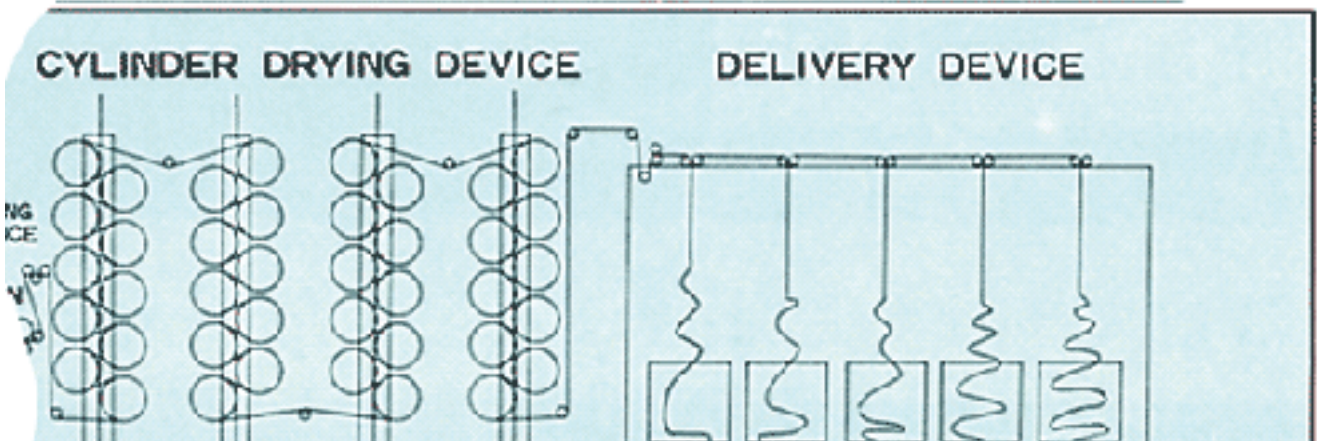
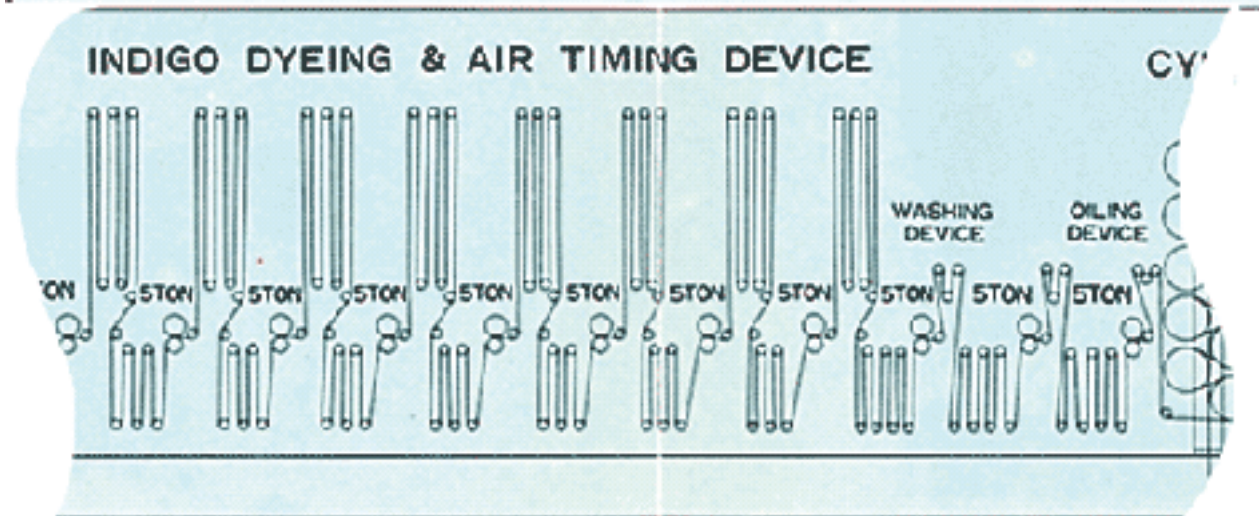
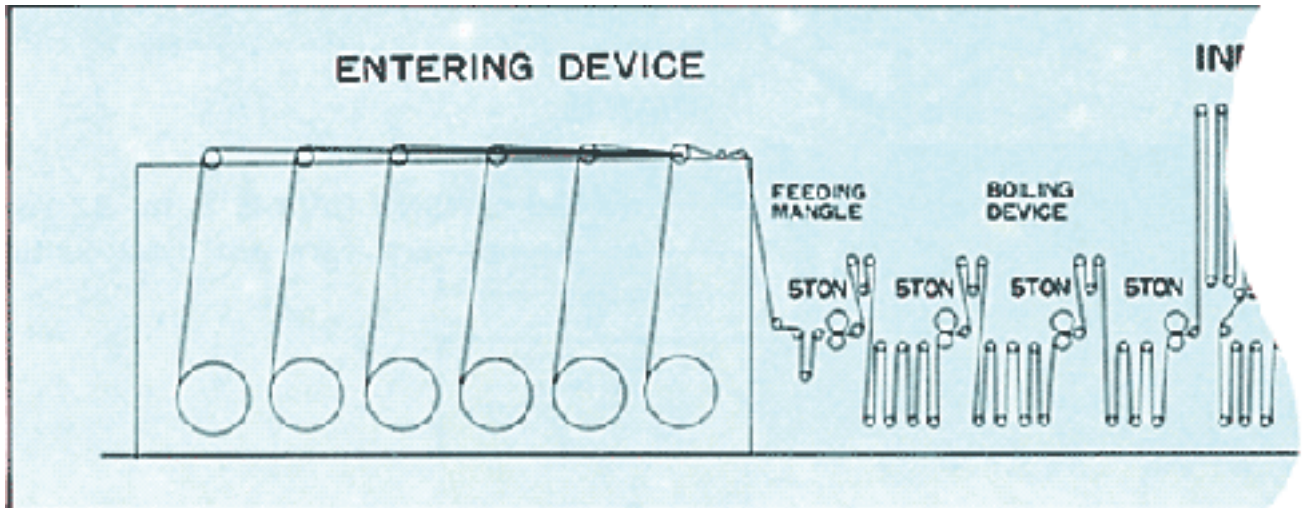




indigo  
**indigo**

# DENIM MANUFACTURING PROCESS





## E WET OH

### Wetting Agent for Lye Treatment of Warp Yarns

- Promotes instant wetting of yarn during caustification.
- Enables the yarn to reach more deeper/shades. Hues is more uniform and solid.
- Stable between 5 – 15 Be'.
- Anionic/Nonionic.
- Silicone free.

#### Recipe

NaOH	8 – 12 Be'
E WET OH	5 – 10 ml/L
EXOLINE PAD	8 – 10

## EXOLINE PAD

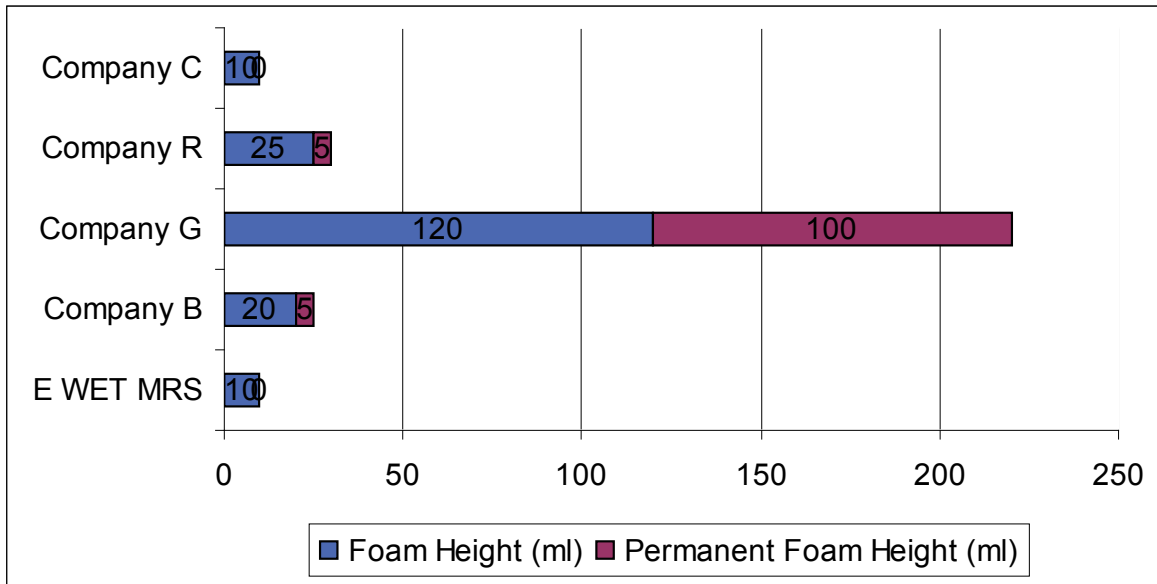
### Pick-up Enhancer for Padding Systems

- Polymer emulsion.
- Increase pick-up in padders on hydrophobic and/or tightly woven fabrics. (e.g.)  
Desizing,  
Caustification of denim dyeing,  
CPB dyeing.
- EXOLINE PAD is used with wetting agent together to achieve synergistic boom.

## E WET MRS

### Wetting Agent for Mercerising and Caustic Treatment

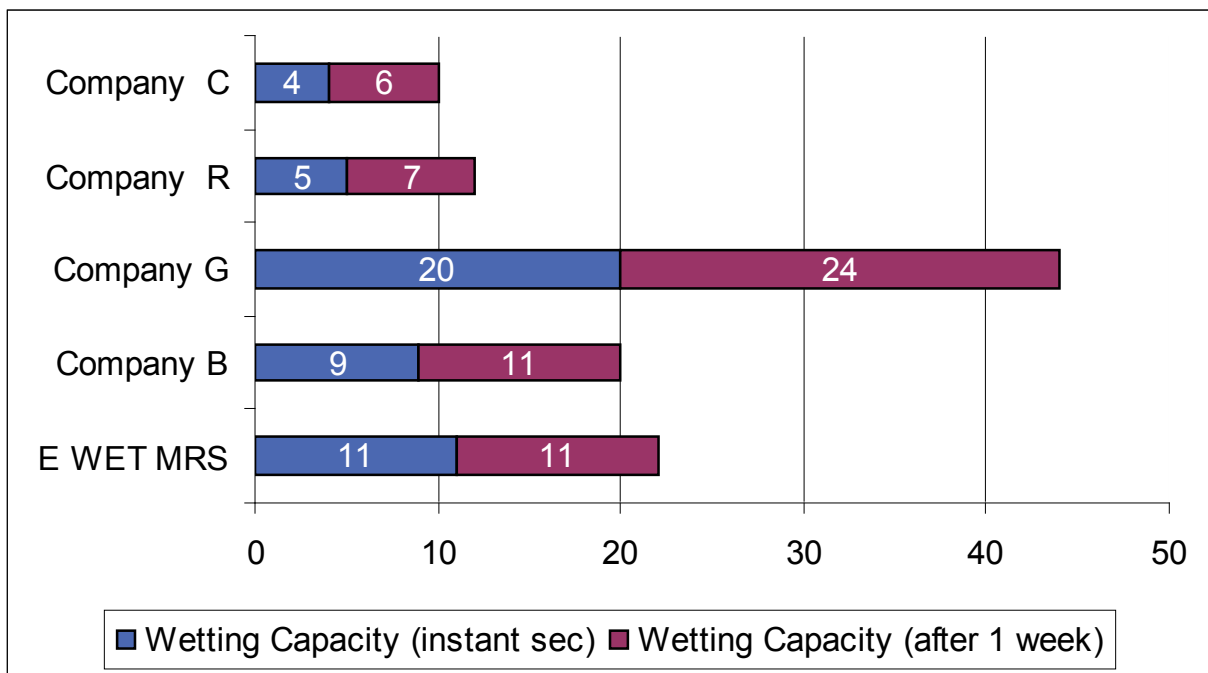
- Sulphated alcohol.
- Anionic.
- E WET MRS is highly active, low foaming for alkaline scouring and mercerizing processes.
- E WET MRS has its best wetting effect in caustic soda of 15 - 30 Be'.



	E WET MRS	Company B	Company G	Company R	Company C
Foam Height (ml)	10	20	120	25	10
Permanent Foam Height (ml)	0	5	100	5	0

- 15 g/L mercerizing agent in 30 Be' caustic soda solution.

## Wetting Capacity



	E WET MRS	Company B	Company G	Company R	Company C
Wetting Capacity (instant sec)	11	9	20	5	4
Wetting Capacity (after 1 week)	11	11	24	7	6

- 15 g/L mercerizing agent in 30 Be' caustic soda solution.

## EVULATION

	Company B	Company G	Company R	Company C	E WET MRS
Foam Height	****	*	****	****	****
Wetting Capacity	****	**	*****	****	***
Initial Alkali Stability	****	****	****	****	****
Alkali Stability After 1 Week	***	****	**	**	***

## E WET NDG

### Wetting and Penetrating agent for Indigo Dyeing

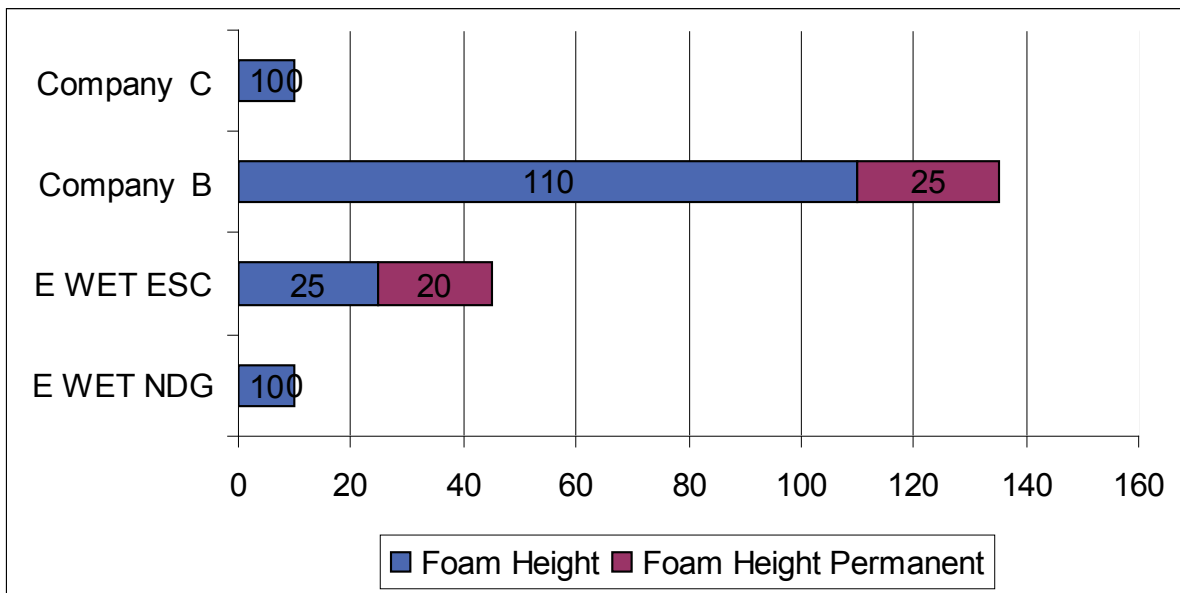
- Salt of phosphoric acid ester.
- Anionic.
- It is a low foaming padding auxiliary for sulphur and reactive dyeing and ensures uniform pick-up on the width of fabric or rope yarns.
- E WET NDG is stable up to NaOH, fl 25 g/L (4Be' Caustic soda)
- E WET NDG improves reproducibility of dyeings.

## E WET ESC

### Nonionic Wetting Agent for Padding of Cationic Resins and Softeners

- Mixture of surfactants.
- Nonionic.
- E WET ESC is specially developed to apply cationic chemicals, like silicone and fatty acid softeners.
- E WET ESC is a strong penetrator and ensures thorough and uniform pick-up in pad applications.
- E WET ESC is an efficient deaerator. It may applicable in beam, package or exhaust dyeing.

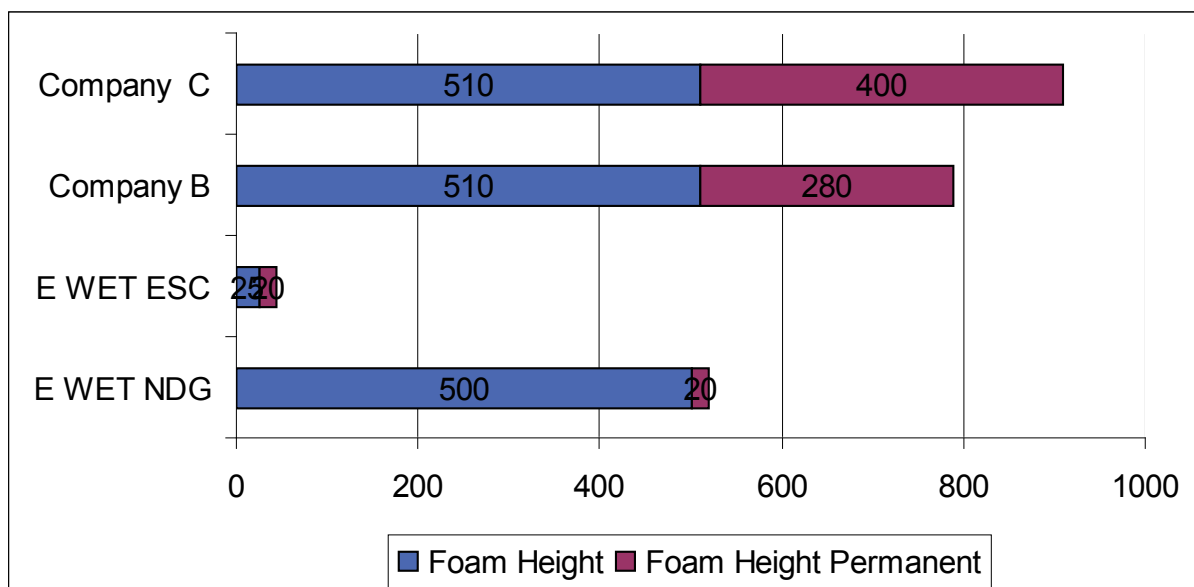
## Foam Height at Room Temperature



	E WET NDG	E WET ESC	Company B	Company C
Foam Height	10	25	110	10
Foam Height Permanent	0	20	25	0

- 4 g/L wetting agent.

## Foam Height at Room Temperature (In Alkali Soln.)



	E WET NDG	E WET ESC	Company B	Company C
Foam Height	500	25	510	510
Foam Height Permanent	20	20	280	400

- 4 g/L wetting agent + 4 g/L caustic soda fl.

## EVULATION

	Company B	Company C	E WET NDG	E WET MRS
Wetting Capacity in Water	***	***	****	****
Wetting Capacity in Alkali Sln.	***	*	****	****
Foam Height	**	****	****	****
Foam Height in Alkali Sln.	**	*	***	*****
Compatibility of Cationic Finishing Agents	*	*	*	*****

## ANTISIL CONZ 1

### Sequestering Agent With Dispersing Effect

- Sodium salt of phosphonic acids.
- Anionic.
- Excellent dispersing properties in all pH ranges.
- High complexing properties to calcium, magnesium, iron, copper, chrome and manganese ions.
- Keeps quiding rollers of Indigo dyeing range in deposit-free form.

## UNISIL NLP W

### Macro-Nano Silicone Emulsion

- Modified, functional, polydimethyl siloxane.
- Weakly cationic.
- Due to it's strong concentration, application amount is very low.
- It is advised for knits and woven fabrics

## UNISIL STB

### Micro-Macro Silicone Emulsion

- Modified, functional, polydimethyl siloxane with moderate amine number.
- Weakly cationic
- UNISIL STB is nano size silicone emulsion imparting the fabric bulky, flexible handle with a slippery effect .
- It is advised for knits and woven fabrics.