



SEQUESTERING, DISPERSING
and PEROXIDE STABILIZING

Antisil Conz 1



ANTISIL CONZ 1

SEQUESTERING, DISPERSING AGENT

Brighter Colors & Better Fastness
 Less Crease & Unlevelling
 Cleaner Machines by Avoiding
 Silicate, Carbonate & Hydroxide Deposits

IMPORTANCE OF A STRONG SEQUESTERING AGENT

- Alkali Earth Metals precipitate in alkali baths.

$NH_4 < Na < K < Mg < Ni < Mn < Zn < Ca < Ba$ with an increasing order aggregation.

Analysis of Cotton FIBER

	Ca ppm	Mg ppm	Fe ppm	Al ppm	Mn ppm
Sendhwa In.	1000	600	125	45	5,9
Bailhongal In.	1030	845	115	64	5,6
Jetpur Ind.	580	585	84	65	3,9
Pandurna Ind.	980	790	474	220	9,9
Izmir Tr.	905	890	22	15	3
Hatay Tr.	725	640	24	17	3
Urfa Tr.	6290	1190	63	48	31
Tarsus Tr.	985	620	29	23	3
Paranah Br.	2711	1119	313	n.a	n.a
Sao Paulo Br.	944	863	72	n.a	n.a
Peru	700	440	13	n.a	n.a
Texas USA	810	365	75	n.a	n.a
California USA	600	540	40	n.a	n.a
Russia	1320	567	112	n.a	n.a

Addition to that; cotton seeds stem particles also carry ion content more than fiber itself...

	Ca	Mg	Fe	Al	Mn
Seeds	25000	5500	600	1100	85
Stem particles	17500	7000	350	600	90

****The more seeds, the more Ca, Mg & Iron ions...**

Whether we use soft water or R/O water, we need to use a strong sequestering agent.

DISADVANTAGES of Ca&Mg IN TEXTILE PROCESS

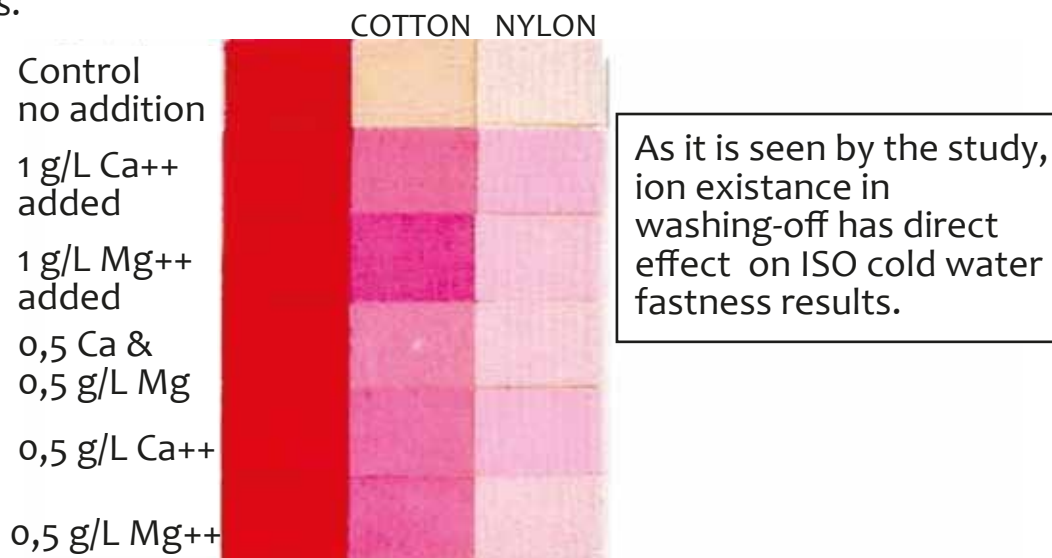
- Insoluble powder deposits of carbonates, hydroxides in alkali bleaching /dyeing baths.
- Insoluble silicate deposits.
- Lime soap stains.
- Peroxide stabilizers are blocked.
- Oil emulsion (softeners & lubricants) are broken by Ca & Mg.
- Solubility of dyes decrease.
- Causes creases & stains.
- Causes shade change & fastness decrease.
- Yellowish deposits on inside & tops of yarn bobbins.
- Unlevel dyeing.

ANTISIL CONZ 1 ... Sequesters 70 ppm g/L Ca⁺⁺ at pH 11.

So if your cotton contains 700 ppm Ca... In a 1:10 liquor ratio ... Water will contain 70 ppm Ca.

Theoretically 1 g/L **ANTISIL CONZ 1** at pH 11 will be adequate to sequester enough Ca in alkali scouring & bleaching baths. But usage of **ANTISIL CONZ 1** is also suggested in dyeing bath minimum 0,5 g/L.

Below you can see the effect of ion content in dyeing on cold water wash fastness.



In continuous process, 2 - 5 g/L **ANTISIL CONZ 1** is suggested.

CLEANER MACHINES with ANTISIL CONZ 1

ANTISIL CONZ 1... Prevents hardness salts precipitation and also disperse cotton pectines & waxes and other insoluble impurities leading to less incrustation of the machines & less deposit on the roller.



NO NEED FOR AN EXTRA STABILIZER

ANTISIL CONZ 1 sequesters 555 ppm FeCl_3 in peroxide & alkali conditions therefore itself works as a perfect peroxide stabilizer. No need to use an extra peroxide stabilizer besides.

GUIDELINES TO APPLICATION

Scouring

Exhaust/Yarn	: ANTISIL CONZ 1 0,5 g/L
Continuous Process	: 2 g/L

Bleaching of Cotton & Blends

Exhaust / Yarn	: ANTISIL CONZ 1 0,5 - 1 g/L (No need extra stabilizer)
Continous Process	: ANTISIL CONZ 1 2 - 3 g/L (Use PERTONE PR as a stabilizer)