



Compatibility of Volta Belt Materials with Ecolab Cleaning/Disinfecting Products

A soak test was carried on several Ecolab products to determine if any damage to various Volta food grade belt materials would result from prolonged exposure to some of their newer cleaning and disinfecting chemicals. The grading of the results is the same as we use in the Volta chemical resistance list, namely **P** = poor **F** = fair **G** = good

The results do not give any information regarding cleaning procedures in factories, only overall results of various parameters of belt condition that accrue over time.

Only chemical producers (such as Ecolab) can issue cleaning instructions. However, even these are general parameters not suited to every situation (different types of residue, operating temperatures, cleaning cycles, means of deployment et.c). A factory initially changing to a hygienic Volta belt on a given line, OR changing a chemical that will be in contact with a belt, should use its validation protocol to adopt a consistent, effective, and safe to use (also for equipment) cleaning process which then becomes part of the factory's Standard Operating Procedure (SOP).

The tests conducted support the general requirement for a post-cleaning washdown to remove traces of chemicals and thus prolong belt lifetime.

Ecolab Materials Used for Testing

#	Chemical family	Representative cleaning agent	Concentration
1	Alkaline, Surfactant based	Topaz HD3	8%
2	Acid, Surfactant based	Topax 52	5%
3	Alkaline, Low Concentration Active Chlorine	P3-Topax 66	3%
4	Acid, Oxidizer	P3-Oxonia Active	3%
		P3-Oxonia Active 150	1%
5	Neutral, Disinfectant	P3-Topax 990	2%

Test Findings

#	Cleaning agent	J Family – 55D Shore					
		Weight change	Color change	General Degradation	Tensile strength at 5% elongation	Abrasion loss	Avg. result
0	100% Water	G	G	G	G	G	G
1	Topaz HD3	G	G	G	G	G	G
2	Topax 52	G	G	G	G	G	G
3	P3-topax 66	G	G	G	G	G	G
4	Oxonia Active	G	G	G	G	G	G
5	P3-Topax 990	G	G	G	G	G	G
6	Oxonia Active 150	G	G	G	G	G	G

#	Cleaning agent	H Family – 55D Shore					
		Weight change	Color change	General Degradation	Tensile strength at 5% elongation	Abrasion loss	Avg. result
0	100% Water	G	G	G	G	G	G
1	Topaz HD3	G	G	G	G	G	G
2	Topax 52	G	G	G	G	G	G
3	P3-topax 66	G	G	G	G	G	G
4	Oxonia Active	G	G	G	G	G	G
5	P3-Topax 990	G	G	G	G	G	G
6	Oxonia Active 150	G	G	G	G	G	G

#	Cleaning agent	M Family – 53D Shore					
		Weight change	Color change	General Degradation	Tensile strength at 5% elongation	Abrasion loss	Overall result
0	100% Water	G	G	G	G	G	G
1	Topaz HD3	G	G	G	G	G	G
2	Topax 52	G	G	G	G	G	G
3	P3-topax 66	G	G	P	G	G	G
4	Oxonia Active	G	G	G	G	G	G
5	P3-topax 990	G	G	G	G	G	G
6	Oxonia active 150	G	G	G	G	G	G

#	Cleaning agent	LT (low temperature) Family – 95A/46D Shore					
		Weight change	Color change	General Degradation	Tensile strength at 5% elongation	Abrasion loss	Overall result
0	100% Water	G	G	G	G	G	G
1	Topaz HD3	G	G	G	G	G	G
2	Topax 52	G	G	G	G	G	G
3	P3-topax 66	G	G	P	G	G	G
4	Oxonia Active	G	G	G	G	G	G
5	P3-topax 990	G	G	G	G	G	G
6	Oxonia active 150	G	G	G	G	G	G

#	Cleaning agent	L Family Belts – 80A Shore					
		Weight change	Color change	General Degradation	Tensile strength at 5% elongation	Abrasion loss	Overall result
0	100% Water	G	G	G	G	G	G
1	Topaz HD3	G	G	G	G	G	G
2	Topax 52	G	G	G	G	G	G
3	P3-topax 66	G	G	F	G	G	G
4	Oxonia Active	G	G	G	G	G	G
5	P3-topax 990	G	G	G	G	G	G
6	Oxonia active 150	G	G	G	G	G	G