Comparison of Durafiber Polypropylene and Polyester Fibers

Degree of Degradation After 1000 Hours Exposure

Chemical		@ 21°C		@ 95°C	
		Durafiber	Polyester	Durafiber	Polyester
10%	Sulfuric Acid	Slight	None	None	None
96%	Sulfuric Acid	Slight	None	Degraded	ND
10%	Nitric Acid	Slight	None	Degraded	Degraded***
70%	Nitric Acid	Moderate	Degraded***	Degraded	ND
10%	Hydrochloric Acid	None	None	None	ND
3%	Hydrochloric Acid	None	Moderate	ND	ND
5%	Formic Acid	None	ND	None	ND
90%	Formic Acid	Slight	None	None	Degraded***
10%	Oxalic Acid	None	None	None	Degraded***
10%	Sodium Hydroxide	ND	Appreciable	None	Degraded***
40%	Sodium Hydroxide	Slight	Degraded	Moderate	Degraded+
28%	Ammonium Hydroxide	None	Degraded	ND	ND
3%	Hydrogen Peroxide pH=4	Slight	ND	ND	ND
3%	Hydrogen Peroxide	None	ND	ND	ND
0.5%	Sodium Hypochlorite pH=10	None	ND	Degraded	ND
0.3%	Sodium Chlorite pH=4	Slight	Appreciable	Degraded	ND
0.3%	Sodium Chlorite pH=7	None	ND	Degraded	ND
0.3%	Sodium Chlorite ph=ll	Slight	ND	Degraded	ND
	Sodium Hydrosulfite pH=13	Slight	ND	ND	None**
	Acetone	Slight	None	ND	ND
	Benzene	None	None	ND	ND
	Ethanol	None	None	ND	ND
	Carbon Tetrachloride	None	None	ND	ND
	M-Cresol	None	None	None	Degraded+
	Phenol (90%)	None	Slight*	None	Degraded+
	Sodium chloride++	None	None	None	None
	Aluminum Chloride++	None	None	None	ND
	Copper Sulfate++	None	None	Moderate	ND
	Manqanese Chloride++	None	None	None	ND

Degree of Degradation

None	90% or more of original strength retained
Slight	80-90% of original strength retained
Moderate	60-79% of original strength retained
Appreciable	20-59% of original strength retained
Degraded	0-19% of original strength retained

\+ 10 hour exposure
++ Saturated solutions 10% phenol in H20
ND No data
** 700C for 10 hours
*** RTP data