

**KARLAN RESEARCH PRODUCTS CORPORATION**

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Comparative data: NESCOFILM and PARAFILM

Effects of Common Reagents		NESCOFILM	PARAFILM
Hydrochloric Acid	conc 12N	no effect	no effect
	dil. 5N	no effect	no effect
Sulfuric Acid	conc. 36N	Slightly softening	Slightly softening
	dil. 5N	no effect	no effect
Nitric Acid	conc. 16N	light yellow coloration	light yellow coloration
	dil. 5N	no effect	no effect
Sodium Hydroxide	22%	no effect	no effect
Potassium Permanganate	5%	Brown coloration	Brown coloration
	0.1%	no effect	no effect
Iodine Solution	0.1 %	Brown coloration	Brown coloration
Salt (NaCL) Solution	20%	no effect	no effect
Carbon Tetrachloride	99%	Partially dissolving and softening	Dissolving
Chloroform	99%	Partially dissolving and softening	Completely dissolving like fiber
Ethyl Ether	99.5%	Whitening and dissolving	Whitening and dissolving
Ethyl Alcohol	99.5%	no effect	no effect
Isopropyl Alcohol	99.5%	no effect	no effect

Physical properties (Average of 4 test samples)		NESCOFILM	PARAFILM
100% Modulus (g/mm ²)	MD	256	221
	CD	147	135
300% Modulus (g/mm ²)	MD	269	268
	CD	160	165
Tensity of Breakage (g/mm ²)	MD	455	417
	CD	560	277
Elongation of Breakage(%)	MD	930	429
	CD	897	458
Stress at Surrender Point (g/mm ²)	MD	244	314
	CD	143	211
Tear Strength (g/m x 10 ⁻¹)	MD	235	233
	CD	317	219
Moisture Vapor Permeability (g/m ² ,24h)		1.94	3.93
Oxygen Permeability (cm ³ ,mm/m ² ,24h,atm)		58	35

MD = Machine Direction CD = Cross Direction