

MAKES FILMS WITH OUTSTANDING PROPERTIES

TYPICAL PROPERTIES OF PACO FILMS

Data recorded following appropriate ASTM method.

TYPE "N" TYPE "C" TYPE "D"

TYPICAL PHYSICAL AND MECHANICAL PROPERTIES

Tensile strength, psi	6,500	10,000	11,000
Tensile strength, MPa	45	69	76
Yield strength, psi	6,300	8,000	9,000
Yield strength, MPa	43	55	62
Tensile modulus, MPa	2,400	3,200	2,800
Elongation at break, %	40	200	10
Yield elongation, %	2.5	2.9	3.0
Density, g/cm ³	1.110	1.289	1.418
Coefficient of friction: static	0.25	0.29	0.33
dynamic	0.25	0.29	0.31
Water absorption, %(24 hr)	0.01(0.019")	0.06(0.029")	-
index of refraction, n _D ²³	1.661	1.639	1.669

TYPICAL ELETRICAL PROPERTIES

Dielectric strength, short time(Volts/mil at 1 mil)	7,000	6,800	5,500
Volume resistivity, 23°C, 50% RH(Ohm-cm)	1 x 1,017	6 x 1,016	2 x 1,016
Surface resistivity, 23°C, 50% RH(Ohms)	1,015	1,015	5 x 1,016
Dielectric constant: 60 Hz	2.65	3.15	2.84
1,000 Hz	2.65	3.10	2.82
1,000,000 Hz	2.65	2.95	2.80
Dielectric factor: 60 Hz	0.0002	0.020	0.004
1,000 Hz	0.0002	0.019	0.003
1,000,000 Hz	0.0006	0.013	0.002

TYPICAL BARRIER PROPERTIES

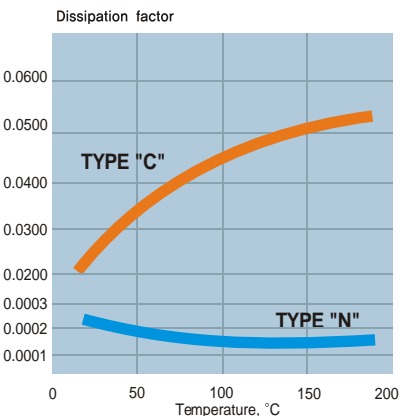
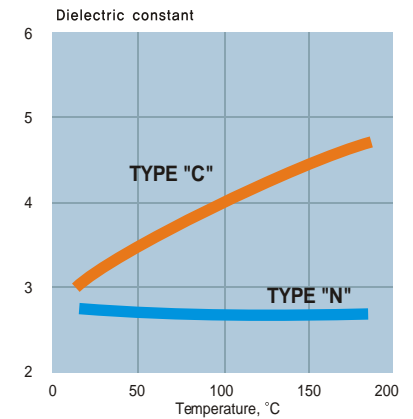
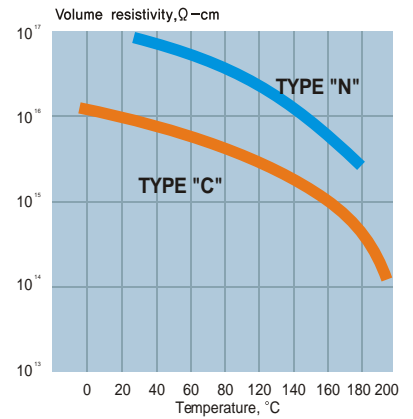
GAS PERMEABILITY*			
Nitrogen	7.7	0.95	4.5
Oxygen	30	7.1	32
Carbon dioxide	214	7.7	13
Hydrogen sulfide	795	13	1.45
Sulphur dioxide	1.89	11	4.75
Chlorine	74	0.35	0.55
MOISTURE VAPOR TRANSMISSION**			
	1.50	0.14	0.25

* cm³/mil/ 100 in²24hr - atm(23°C)

** g - mil/100 in²24hr, 37°C, 90% RH 1 mil=1/1000 in=25.4 microns*

TYPICAL ELETRICAL PROPERTIES

Melting temperature,(°C)	410	290	380
Linear coefficient of expansion, (10 ⁻⁵ / °C)	6.9	3.5	-
Thermal conductivity, 10 ⁻⁴ (cal/sec) / (cm ² °C/cm)*	3	2	-



The chemical nature of PACO and the unique deposition technique allow the formation of polymeric films which exhibit an extraordinary combination of:

OUTSTANDING PROPERTIES

- THICKNESS UNIFORMITY
- THICKNESS RANGE (from 0.01 to 1000 microns)
- BIOCOMPATIBILITY (inertness of the PACO barrier)
- HIGH-LIGHT TRANSMISSION (high transparency)
- STRESS FREE COATINGS
- RADIATION RESISTANCE
- DRY FILM LUBRICANT (low friction coefficient)
- PARTICLE RETENTION

EFFECTIVE PROTECTION

- ACID AND ALKALI RESISTANCE
- SOLVENT RESISTANCE (insoluble in any common solvent)
- UNRIVALED BARRIER EFFECT (low permeability to permanent gases and moisture vapor)
- MECHANICAL STRENGTH
- DIELECTRIC STRENGTH (superior electric insulation)
- THERMAL STABILITY (usable up to 275°C)
- CRYOGENIC RESISTANCE (down to -200°C)
- FUNGUS AND BACTERIA RESISTANCE