

Properties I

Typical thermal properties	N	C	D	F	AF4
Melting point (°C)	410	290	380	>460	>500
Linear coefficient of expansion (ppm/°C)	69	35	38	36	36
Thermal conductivity, @ 25°C Watts/Meter.Kelvin	0,120	0,082	n/a	0,096	0,096
Continuous temperature* (°C)	90	125	160	190	350
Temporary peak temperature* (°C)	120	200	300	300	450

Typical physical and mechanical properties	N	C	D	F	AF4
Tensile strenght, psi	6.500	10.000	11.000	7.500	7.500
Tensile strenght, MPa	45	69	76	52	52
Yield strenght, psi	6.300	8.000	9.000	5.000	5.000
Yield strenght, MPa	43	55	62	34	34
Tensile modulus, psi	350.000	400.000	380.000	370.000	370.000
Tensile modulus, MPa	2.400	3.200	2.800	2.500	2.500
Elongation at break, %	250	200	200	200	200
Yield elongation, %	2,5	2,9	3,0	2,0	2,0
Density, g/cm ³	1,110	1,289	1,418	1,32	1,32
Coefficient of friction: Static	0,25	0,29	0,33	0,14	0,14
Dynamic	0,25	0,29	0,31	0,13	0,13
Water adsorption: % (24 h)	0,01	0,06	< 0,1	<0,009	<0,01
Index of refraction, n _D ²³	1,661	1,639	1,669	1,559	1,559



Properties II

Typical electrical properties	N	C	D	F	AF4
Dielectric strength, short time (Volts/mil at 1 mil)	7.000	5.800	5.500	5.500	5.500
Volume resistivity, 23°C, 50% RH (Ohm-cm)	1×10^{17}	6×10^{16}	2×10^{16}	2×10^{17}	2×10^{17}
Surface resistivity, 23°C, 50% RH (Ohm)	10^{15}	10^{15}	5×10^{16}	5×10^{15}	5×10^{15}
Dielectric constant: 60Hz	2,65	3,15	2,84	2,25	2,21
1,000Hz	2,65	3,10	2,82	2.1	2.2
1,000,000Hz	2,65	2,95	2,80	2,16	2,17
Dissipation factor: 60Hz	0,0002	0,020	0,004	0,0002	<0,0002
1,000Hz	0,0002	0,019	0,003	0,0020	0,0020
1,000,000Hz	0,0006	0,013	0,002	0,0010	0,0010

Typical barrier properties	N	C	D	F	AF4
Gas permeability (23°C), (cc x mm) / (m ² x 24 hr x atm)					
Nitrogen	7,7	0,37	1,77	4,85	4,8
Oxygen	11,81	2,8	12,6	23,5	23,5
Carbon dioxide	84,25	3,03	5,12	95,6	95,4
Hydrogen sulphide	313,0	5,12	0,57	n/a	n/a
Sulphur dioxide	0,74	4,33	1,87	n/a	n/a
Chlorine	29,13	0,14	0,22	n/a	n/a
Hydrogen	212,6	43,31	94,49	n/a	n/a
Moisture vapour transmission, (g x mm) / (m ² x 24 hr), 37°C, 90%RH	0,59	0,06	0,1	0,23	0,22