



Alro Plastics

Your Source for Engineering Plastics

Sheet • Rod • Tube • Film • Profiles • Machined Parts

KING HY-PACT®

Physical Properties	ASTM Test	Value	Units
Density	D1505	0.95	g/cc
Tensile Strength @ Yield	D638	>4,100	psi
Elongation @ Yield	D638	9.6	%
Flexural Modulus	D790	186,000	psi
Durometer	D2240	65	Shore D
Izod Impact	D256	16.6	ft.lbs./in.2
Brittleness Temperature	D746	<-90°C (<-130°F)	°C (°F)
Vicat Softening	D1525	130°C (266°F)	°C (°F)
Heat Deflection Temp. 66 psi	D648	75°C (167°F)	°C (°F)
Coefficient of Linear Expansion	D696	6.0 x 10 ⁻⁵	in./in./°F

QUV Accelerated Weathering Tester	ASTM	King StarBoard® UV Protected	King Hy-Pact® UV Protected	UHMW-PE UV Protected
		Unexposed 2000 Hours of Exposure	Unexposed 2000 Hours of Exposure	Unexposed 2000 Hours of Exposure
Tensile @ Yield 70°F (psi)	D638	4,260 4,250	4,100 4,100	3,010 2,970
Elongation @ Yield 70°F (%)	D638	9.2 9.1	9.6 9.6	16 3.2
Tensile @ Break 70°F (psi)	D638	690 680	1,930 1,440	No Break 2,940
Elongation @ Break 70°F (%)	D638	160 155	260% 210%	No Break 3.4%
Taber Index	D4060	21 45	5 12	2 182
IZOD notch 70°F (ft. lbs./sq.in.)	D256	4.1 3.9	16.6 15.7	20.02 0.84
Coefficient of Friction - Kinetic	D1894	0.0888 0.0888	0.0888 0.0888	0.129 0.129
Coefficient of Friction - Static	D1894	0.0832 0.0832	0.0832 0.0832	0.102 0.102

All values are determined on specimens prepared according to ASTM Standards.

Nominal values should be interpreted as specifications.

King Hy-Pact® is made entirely from FDA materials.