



The PE 4710 - PE 100 Special Black Polyethylene Material for the Pipe Industry

King PipeGrade® is PE4710 - PE 100 material, which is compliant to ASTM 3350 as a standard material. ASTM 3350/4710 PE100 is completely compatible and 100% interchangeable for use in applications that presently use ASTM 3608 - PE 80 material. King PipeGrade® is FDA and NSF Standard 14 certified and complies with ANSI/NSF Standard 61 to be used in potable water piping systems.

PE 4710- PE 100 tends to have a higher hydrostatic design basis (HDB) than other resins but most significantly is the notched tensile/slow crack PENT test which is > 10,000 hours vs. 100-200 hours for others.

50 - 100 years service life per ISO CRS 10 MPa @ 20° C.

KING PIPEGRADE®

Applications

- Aquaculture
- Chain Guides
- Gas Lines
- Gravity and Force Mains
- Industrial Pipe Processing
- Irrigation
- Municipal Sewer Systems
- Paddles, Weirs and Wear Shoes
- Plumbing Pipes and Fittings
- Water and Sewage Treatment

Specifications

Standard Sheet Sizes

in: 1/8" to 1-1/2"	48" x 96"
mm: 8.255mm to 38.1mm	1219mm x 2438.4mm
in: 1-1/2" to 4"	48" x 96"
mm: 38.1mm to 101.6mm	1219.2mm x 2438.4mm
in: 1/4" to 1-1/2"	60" x 120"
mm: 6.35mm to 38.1mm	1524mm x 3048mm

Standard Color



Black

Note: Color accuracy can vary considerably on computer monitors and printers. Please consult your distributor for a product sample before making critical color choices.

Standard Gauges 48" x 96"

in: 1/8" 3/16" 1/4" 3/8" 1/2" 5/8" 3/4" 1"
mm: 3.75mm 4.76mm 6.35mm 9.53mm 12.7mm 15.875mm 19.05mm 25.4mm
in: 1-1/4" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3-1/2" 4"
mm: 31.75mm 38.1mm 44.45mm 50.8mm 63.5mm 76.2mm 88.9mm 101.6mm

Standard Gauges 60" x 120"

in: 1/4" 1/2" 3/4" 1" 1-1/2"
mm: 6.35mm 12.7mm 19.7mm 25.4mm 31.75mm

Approximate Weight 48" x 96"

lbs: 20 lbs 30 lbs 60 lbs 80 lbs 100 lbs 120 lbs 160 lbs 200 lbs 240 lbs
kg: 9.07kg 13.61kg 27.21kg 36.29kg 45.36kg 54.43kg 72.58kg 90.72kg 108.9kg
lbs: 280 lbs 320 lbs 360 lbs 400 lbs 480 lbs 570 lbs 640 lbs
kg: 127kg 145.15kg 163.30kg 181.44kg 217.72kg 258.5kg 290.3kg

Approximate Weight 60" x 120"

lbs: 62.5 lbs 125 lbs 187.5 lbs 250 lbs 375 lbs
kg: 28.35kg 56.7kg 85.04kg 113.4kg 170.01kg

Tolerance Information:

K-Stran™

Gauges 1/8" through 1-1/2" ± 5% | Length and width plus only at room temperature

Compression Molding

Gauges greater than 1" and under 1-1/2" ± 10% | Gauges 1-1/2" and greater plus only | Length and width plus only at room temperature

Custom thickness up to 25"/635mm with our King Size Blocks and Massive Shapes

Custom Sizes Available up to 96" width and 100'+ in length

Properties	Units	ASTM	Nominal Values
Density	g/cc	D792	0.961
Tensile Strength @ Yield	psi	D638	3,630
Tensile Strength @ Break	psi	D638	5,510
Elongation @ Break	%	D638	600
Flexural Modulus 2% secant	psi	D790	150,000
Notched Izod Impact	ft.lbs./in. ²	D256	9.2
Brittleness Temp.	°C (°F)	D746	-118°C (-180°F)
Vicat Softening Temp.	°C (°F)	D1525	126°C (259°F)
Environmental Stress Crack Resistance	hrs	D1693C	>5,000
Notch Tensile (PENT)	hrs	F1473	>10,000



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