



Base-Line HDPE Pipe for Mining Operations

Base-line is United Poly Systems HDPE pipe specifically suited for mining operations. The large amounts of water necessary in mining operations must be transported to different points in the mining site, which can be miles across. The easy installation, flexibility and customization of HDPE allow the water lines to be deployed where necessary.

The fusion-joint properties of HDPE means that the joint is stronger than the pipe itself. And the material characteristics properties (high ductility and ability to resist deflections from ground movement) provide flexibility not found in rigid iron or steel pipe, meaning it can withstand soil subsidence and shifting over time or major seismic events such as earthquakes. The abrasion resistance of polyethylene means it is well suited for solids transmission, common in mining.



Industrial and mining applications include:

- Tailings Transportation
- Dust Suppression
- Mine Dewatering
- Pit Dewatering
- Depressurization
- Odor Control
- Solution Mining
- Heap Leaching
- Process Water
- Process Slurry
- Water Transportation

Advantages of HDPE for mining applications

- Chemical and Abrasion Resistance
- Pressure Surge Resistance
- Affordability
- Ease of installation



Product Information

Base-Line is manufactured in ¾-in. through 24-in. diameter sizes

Dual striping is available for SDR indication (8 in. through 24 in.)

Product is manufactured in IPS (iron pipe size) and DIPS (ductile iron pipe size, 4 in. and up

Base-Line material meets or exceeds ASTM Standard D 3350 requirements

SDR Strip Color Identification

SDR 6: Brown	SDR 15.5: Orange
SDR 7: White	SDR 17: Blue
SDR 9: Red	SDR 21: Purple
SDR 11: Gold	SDR 26: Green
SDR 13.5: Grey	SDR 32.5: Pink

PE4710 Typical Physical Properties

PROPERTY	TYPICAL VALUE	UNITS	TEST METHOD
Density with minimum 2% carbon black	0.960	g/cc	ASTM D 792 or 1505
High Load Melt Index	8.5	g/10 minutes	ASTM D 1238
Melt Index	0.08	g/10 minutes	ASTM D 1238
Flexural Modulus	110,000 < 160,000	psi	ASTM D 790
Tensile Strength @ yield (2 in./min)	3600	psi	ASTM D 638
Tensile Elongation @ Break	740%	%	ASTM D 638
Thermal expansion	1.0 x 10 ⁻⁴	in. / in. / °F	ASTM D 696
HDB 73.4°F (23°C)	1600	psi	ASTM D 2837
HDB 140°F (60°C)	1000	psi	ASTM D 2837
PENT	> 500	hr	ASTM F1473
Brittleness Temperature	< -103°F (-75°C)	°F	ASTM D 746
Cell Classification	445574C (black only)		ASTM D 3350

These are nominal values and used as guidelines only.

This is not a product specification and does not indicate minimum or maximum operating values.