



# COSMOIND USA

## 22.5 ELBOW (BF)

COSMOIND's HDPE Molded 22.5 Elbows are the result of our in-house manufacturing expertise, which includes mold design, production and extensive testing. Made from High-Density Polyethylene (HDPE, PE4710/PE2708, PE100/PE80), these 22.5 Elbows are engineered to be fully pressure-rated, ensuring supervisor quality and exceptional performance.



### ADVANTAGE OF HDPE

HDPE offers high strength, chemical and water resistance, lightweight and impact durability, is environmentally friendly, and performs well within a specific temperature range, making it suitable for various long-term applications.

#### MANUFACTURED IN ACCORDANCE WITH:

<b>AWWA C901</b>	Polyethylene (PE) Pressure Pipe and Tubing, 3/4 In. Through 3 In. for Water Service
<b>AWWA C906</b>	Polyethylene (PE) Pressure Pipe and Fittings, 4 In. Through 65 In. for Waterworks
<b>ASTM D2513</b>	Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, Fittings
<b>ASTM D3261</b>	Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings
<b>ASTM D3350</b>	Standard Specification for Polyethylene Plastics Pipe and Fittings Materials
<b>ANSI/NSF 61</b>	Drinking Water System Components - Health Effects
<b>ANSI/NSF 372</b>	Drinking Water System Components - Lead Content
<b>ISO 4427-1</b>	Plastics piping systems for water supply and for drainage and sewerage under pressure - Part 1 : General
<b>ISO 4427-2</b>	Plastics piping systems for water supply and for drainage and sewerage under pressure - Part 2 : Pipes
<b>ISO 4427-3</b>	Plastics piping systems for water supply and for drainage and sewerage under pressure - Part 3 : Fittings
<b>ISO 4437-1</b>	lastics piping systems for the supply of gaseous fuels - Part 1 : General
<b>ISO 4437-2</b>	lastics piping systems for the supply of gaseous fuels - Part 2 : Pipes
<b>ISO 4437-3</b>	lastics piping systems for the supply of gaseous fuels - Part 3 : Fittings

#### TESTED IN ACCORDANCE WITH:

<b>ASTM D1598</b>	Standard Test Method for Time-to-Failure of Plastic Pipe Under Constant Internal Pressure
<b>ASTM D1599</b>	Standard Test Method for Resistance to Short-Time Hydraulic Pressure of Plastic Pipe, Tubing, and Fittings
<b>ASTM D2513</b>	Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, Fittings
<b>ASTM D3261</b>	Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings
<b>ASTM F2634-15</b>	Standard Test Method for Laboratory Testing of Polyethylene(PE) Butt Fusion Joints using Tensile Impact Method
<b>ASTM F2620</b>	Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings
<b>PPI TR-33</b>	Generic Butt Fusion Joining for Polyethylene Gas Pipe
<b>ISO 1167-1</b>	Determination of the resistance to internal pressure - Part 1 : General method
<b>ISO 1167-4</b>	Determination of the resistance to internal pressure - Part 4 : Preparation of assemblies
<b>ISO 13953</b>	Determination of the tensile strength and failure mode of test pieces from a butt-fused joint
<b>ISO 11357-6</b>	Determination of oxidation induction time and oxidation induction temperature
<b>ISO 1133-1</b>	Determination of the melt mass-flow rate and melt volume-flow rate of thermoplastics - Part 1 : Standard method



### RAW MATERIALS

COSMOIND's 22.5 Elbows are produced utilizing a bimodal high-density polyethylene (HDPE) compound. This advanced material formulation not only delivers exceptional performance in aspects such as strength, toughness, processability, durability, impact resistance and stability but also exhibits superior mechanical properties and environmental resilience, thereby guaranteeing long-term reliability and performance.

### PRODUCTION RANGE (SIZE / SDR)

**SIZE** 12" IPS to 16" IPS // 315mm to 400mm

**SDR** 11 (Other SDR's is available upon request.)

### PRESSURE CLASS

SDR	PE4710 for Industrial				PE4710 for Gas
	73.4°F	100°F	120°F	140°F	73.4°F
11	200 psi	156 psi	126 psi	100 psi	125 psi
17	125 psi	98 psi	79 psi	63 psi	80 psi

SDR	PE2708 for Industrial				PE2708 for Gas
	73.4°F	100°F	120°F	140°F	73.4°F
11	160 psi	124 psi	100 psi	80 psi	100 psi
17	100 psi	78 psi	63 psi	50 psi	62.5 psi

SDR	PE100 for Industrial				PE100 for Gas
	20°C	30°C	40°C	50°C	20°C
11	16 bar	13.6 bar	11.68 bar	10.08 bar	10 bar
17	10 bar	8.5 bar	7.3 bar	6.3 bar	6.25 bar

SDR	PE80 for Industrial				PE80 for Gas
	20°C	30°C	40°C	50°C	20°C
11	12.5 bar	10.62 bar	9.12 bar	7.87 bar	8 bar
17	8 bar	6.8 bar	5.84 bar	5.04 bar	5 bar

### APPLICATIONS

Water Supply

Irrigation

Landscaping

Chemical and Petrochemical

Waste Management

Gas Distribution

Industrial

Mining

Construction

Telecom Conduit

Sewerage and Drainage

Geothermal

Renewable Energy

Marine and Offshore

Electrical Cable