HDPE Molded Fittings Specification Sheet

Product Type: High-Density Polyethylene (HDPE) Molded Butt Fusion Fittings
Standards: ASTM D3261, ASTM F2620, AWWA C901/C906, NSF/ANSI 14 & 61

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1. General Product Description

High-Density Polyethylene (HDPE) molded butt fusion fittings are designed for use in pressure piping systems. They are manufactured using high-quality PE4710/PE100 resins and are suitable for potable water, wastewater, industrial, mining, and gas applications.

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2. Product Characteristics

Attribute	Specification
Material	PE4710 / PE100, high-performance bimodal HDPE resin
Manufacturing Process	Injection molding
Fitting Types	Elbows (22.5°, 45°, 90°), Tees, Reducers, Cross, Caps.
Size Range	½" to 12” (Some available to 24" IPS & larger sizes also available as fabricated)
Pressure Rating	SDR-rated; commonly SDR9 (250 psi), SDR11 (200 psi), SDR17 (125 psi), etc.
Fusion Compatibility	ASTM D2657 & ASTM F2620 butt fusion
Temperature Range	-40°C (-40°F) to 60°C (140°F) continuous service temperature
Color	Black (Black Carbon)

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3. Applicable Standards

Standard	Description
ASTM D3261	Butt heat fusion fittings for PE pressure piping
ASTM F2620	Standard practice for heat fusion joining of PE pipe and fittings
AWWA C901/C906	PE pressure pipe and fittings for water distribution and transmission
NSF/ANSI 14 & 61	Certification for potable water system components
ISO 4427 / ISO 4437	International equivalents (available on request)

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4. Quality Assurance & Certifications

- Fully traceable batch numbers molded into each fitting
- Third-party certified to NSF/ANSI 61 for potable water use
- Compliant with PPI TR-4 listing for PE4710 materials
- Pressure tested per ASTM requirements before shipping
- ISO 9001:2015 certified manufacturing processes

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5. Installation Guidelines

- Fittings must be joined to HDPE pipe via butt fusion using ASTM F2620-compliant procedures.
- Ensure clean and properly aligned pipe/fitting ends before fusion.
- Recommended to use a DataLogger™ or equivalent to record fusion parameters.

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6. Notes

- Larger or custom configurations may be supplied as **fabricated fittings**.
- DIPS and Metric sizing may be available on request.
- SDRs outside SDR9/SDR11/SDR17 (e.g., SDR7, SDR7.3, SDR13.5) may be available on request.
- All molded fittings are designed to have long-term hydrostatic strength based on PE4710 standards.
