



PE-AL-PE Composite Pipe and Brass or Stainless Steel Fittings¹

LETTER OF COMPLIANCE

Scope:

This letter of compliance covers the requirements for 3/8" thru 1" (0912 mm and 2532 mm) **Duratec Airline - Compressed Air and Inert Gas Piping and Fittings**. These products meet or exceed performance standards set by the American Society of Mechanical Engineers (ASME), the American Society for Testing and Materials (ASTM), and CSA International (CSA).

Duratec Airline - Compressed Air and Inert Gas Piping and Fittings are rated for operating pressures of 200 psi at 23°C (73°F) and 160 psi at 60°C (140°F).

Duratec Airline Systems are suitable for plant air, inert gas distribution, CO₂ distribution manufacturing hand tool operation, manual and automated welding operations, semi-conductor tool hook-up, valve actuation - control systems, micro bulk insert gas delivery systems, and robotic installations.

Refer to the Duratec Technical Manual for information relating to the use of **Duratec Airline** with other gases.

Material:

Polyethylene resin used in the manufacturing of **Duratec Pipe** has a unique copolymer molecular structure with side chain distribution providing excellent stress cracking resistance and long term hydrostatic strength as being of a PE-RT category. The compound meets the requirements of PE30 Class A as defined in ASTM D3350 "*Standard Specification for Polyethylene Plastic Pipe and Fittings Materials*". The finished product has been found to have a Flame Spread of 5 and Smoke Development of 15 when tested in accordance with CAN/ULC Standard S102.2 "*Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies*".

Aluminum material used in the manufacturing of **Duratec Pipe** has a minimum elongation to rupture of 20% and ultimate strength of 14,500 psi (100 MPa) when tested in accordance with ASTM Standard E8 "*Test Methods for Tension Testing of Metallic Materials*".

¹ Products are manufactured by IPEX Inc. and/or IPEX USA LLC.

Extruded PE-AL-PE Pipe:

Extruded **Duratec Pipe** conforms to the following standards:

ASTM F1282 “*Standard Specification for Polyethylene / Aluminum / Polyethylene (PE-AL-PE) Composite Pressure Pipe*”

CSA B137.0 “*Definitions, General Requirements, and Methods of Testing for Thermoplastic Pressure Piping*”

CSA B137.9 “*Polyethylene / Aluminum / Polyethylene Composite Pressure-Pipe Systems*”

Duratec Pipe is recognized and approved by the Occupational Safety and Health Association (OSHA) in the U.S.

Duratec Pipe complies with the U.S. Food and Drug Administration requirements for materials that are approved for contact with food.

Brass and Stainless Steel Connector Fittings:

Brass fittings used with **Duratec Pipe** are protected with corrosion-resistant, industrial-strength nickel plating and include double o-ring seals ensuring joint integrity.

Male adapters are manufactured of a 316 stainless steel and meet the requirements of the U.S. Food and Drug Administration (FDA) and are available for conversion to threaded stainless steel fittings for systems where the nickel plated brass is not acceptable.

Duratec Airline Compressed Air and Inert Gas Fittings are recognized and approved by the Alberta Boiler Safety Association (ABSA) and carry a Canada-Wide national pressure vessel product listing CRN# 0A02020.2. Refer to product list for individual item approvals.

Duratec Airline Compressed Air and Inert Gas brass and stainless steel fittings conform to the following standards:

ASTM F1974 “*Standard Specification for Metal Insert Fittings for Polyethylene/Aluminum/ Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe*”

CSA B137.9 “*Polyethylene / Aluminum / Polyethylene Composite Pressure-Pipe Systems*” which references CSA B137.10 for fitting requirements.

Markings:

Duratec Airline Compressed Air and Inert Gas pipe and fittings are marked as prescribed in the above applicable standards to indicate size of the pipe and fittings, material designation, compliance to standard and manufacturers name or trademark.

Colour Coding

Duratec Airline Compressed Air and Inert Gas Pipe is colour-coded blue.

**For questions related to these products, please call
your local IPEX Customer Service Representative.**

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