

PPro-Sea™

Natural Polypropylene Piping System



- Pipe, Valves, Fittings
- Electrofusion
- Mechanical Joint



Easy and Reliable Solution for Natural Polypropylene Piping Systems

Overview

PPro-Seal Natural PP is a highly pure product, ideal for use in piping systems where purity is not only required, but is essential. The system is easy and fast to install with GF's electrofusion technology. To preserve cleanliness and prevent contamination, all PPro-Seal pipe, valves and fittings are specially packaged at the point of manufacture. In operation, PPro-Seal Natural PP is a durable and robust product.

Excellent chemical and corrosion resistance

PPro-Seal has excellent resistance to attack by most organic and inorganic chemicals in common use. In general, it is attacked only by strong oxidizing acids and is weakened by certain organic solvents and chlorinated hydrocarbons.

Like all thermoplastic products, PPro-Seal will not rust, pit, scale or corrode. PPro-Seal is not subject to electrolysis, providing years of maintenance-free, leak-free service.

Rugged

PPro-Seal has excellent impact strength at ambient temperatures and retains much of its impact resistance down to 0°F (-17.8°C).

PPro-Seal benefits

- Excellent chemical and corrosion resistance
- Impact-resistant
- Simple and fast installation procedure
- Low installation costs
- Electrofusion and threaded fittings offering
- Easy to operate electrofusion machines
- Diaphragm and ball valves for a complete system

Applications

Natural Polypropylene's (PPn) chemical and physical properties make it ideal for laboratory and industrial piping where mixtures of acids, bases, and solvents are involved, such as

- Lab Grade DI Water
- Reverse Osmosis Systems
- Life Sciences
- Chemical Process Industry
- Food and Beverage

Size range

½"–2" IPS

Pressure rating

150 PSI (PN10)

Operating temperature

32°F–176°F (0°C–80°C)

Standard ratings

FDA CFR 21 177.1520

ASTM D4101

ASTM F1290

Material

Polypropylene copolymer (PPn)

Joining technology

- Electrofusion
- Threaded

Valves complete your system

The **Type 375 true union ball valves** feature PTFE seats backed with FPM o-rings, a blowout-proof stem with double seals, a floating ball design, and a fully serviceable and adjustable seat carrier. They are supplied with both electrofusion and threaded end connectors.

The **Type 515 and Type 519 diaphragm valves** feature a completely plastic threaded bonnet that eliminates metal bolts from the valve body. The optimal flow geometry results in far better Cv values than traditionally-designed diaphragm valves. With almost linear flow characteristics, this guarantees stable processes.



Joining Methods

The PPro-Seal system uses the electrofusion joining method, using electrical resistance coils that are energized by one of our state-of-the-art fusion units.

Threaded fittings are also available and are an ideal solution if future disassembly is needed. PPro-Seal joints are made quickly, surely and economically.

Electrofusion process

Electrofusion joining method is defined as the joining process where two plastic parts are fused utilizing electrical heat resistance to form a permanent joint.

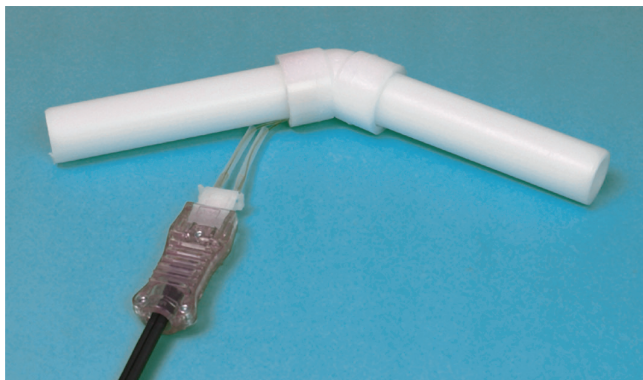
A plastic-coated copper wire is wound into a coil and is then inserted into a fitting socket.

The pipe is then inserted into the fitting socket and an electric current is applied to the coil, producing heat that generates sufficient temperatures to melt the surrounding plastic and create a "melt zone."

Fusion occurs when the joint cools below the melt temperature of the plastic material, leaving a permanent joint that is proven to be as strong as, if not stronger than, the individual components.

Electro Plus® fusion machine

- Intuitive user interface
- Multiple joint capability for speedy installations
- Integral carrying case for ease of transportation
- Network and generator compatible for simple operation
- Self-diagnostic system takes the guesswork out of error detection
- Fusion cycle times automatically adjusted based on air temperature (ATC)
- One-button repeat fusion cycle for same size joints
- Use to install Fuseal® PP, Fuseal 25/50™, and Fuseal Squared® special waste piping systems as well as PPro-Seal™ natural PP process water piping systems

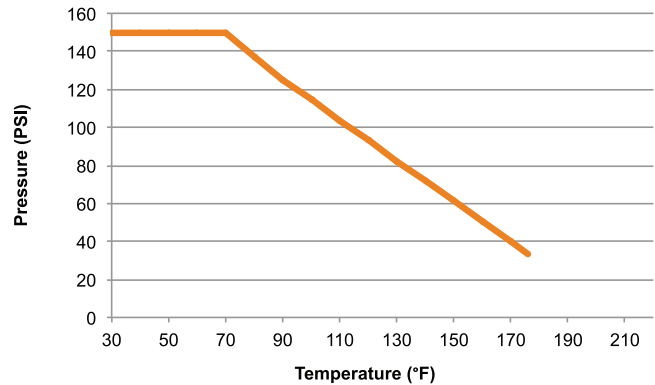


Flow, Temperature and Pressure Rating

PPro-Seal's smooth interior walls result in lower pressure loss and a higher volume of flow that results in a Hazen-Williams C Factor of 150.

PPro-Seal handles corrosive fluids up to 176°F (80°C), beyond the range of many thermoplastics. The maximum pressure for the electrofusion system is 150 psi (10 bar) @ 68°F (20°C).

Threaded systems are not recommended for pressure applications.



Based on 25-year service life and Service Factor C=2.0

Electro Plus fusion machine



Worldwide at home

Our sales companies and representatives

ensure local customer support in over 100 countries

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