

TECHNICAL BULLETIN

SUBJECT: APPROVED APPLICATIONS OF LEGENDPRESS® CSW CARBON STEEL (WATER) PRODUCTS

LegendPressCSW carbon steel products are equipped with EPDM o-rings, approved for general-purpose non-potable water, gas, and compressed air applications when installed on Sch. 10 to 40 carbon steel pipe. This document outlines all approved applications and media.

Media ¹	Use Approved	Max. Pressure	Temp. Range (°F)	Notes
Water/Steam				
Water, Chilled/Radiant Heating	✓	200 psi	0° to 250°	≤50% Ethylene / Propylene glycol
Water, Fire Sprinklers	✓	175 psi	Ambient ²	NFPA 13, 13D, 13R
Steam, Residential	✓	5 psi	227° Max.	
Water, Potable (Hot/Cold)	✗	—	—	Application(s) not approved.
Water, Rainwater/Greywater				
Fuels, Oils, and Lubricants				
Engine Coolant	✓	125 psi	0° to 250°	
Biodiesel	✗	—	—	Application(s) not approved.
Butane				
Diesel Fuel ³				
Engine Oil				
Ethanol				
Gear Oil				
Heating Fuel Oil ³				
Hydraulic Oil				
Kerosene				
Lubricant (Lube) Oil ³				
Mineral Oil				
Natural Gas				
Propane				
Transmission Fluid				
Waste Oil				
Gases				
Acetylene	✓	20 psi	Ambient ²	350 psi Test Pressure
Ammonia	✓	200 psi	120° Max.	Environmental Exposure
Argon (Ar)	✓	200 psi	140° Max.	
Carbon Dioxide (CO ₂)	✓	200 psi	140° Max.	Dry
Compressed Air	✓	200 psi	140° Max.	Oil Concentration ≤25 mg/m3 Oil Concentration >25 mg/m3
Hydrogen (H ₂)	✓	125 psi	140° Max.	
Nitrogen (N ₂)	✓	200 psi	140° Max.	
Oxygen, Non-Medical (O ₂)	✓	140 psi	140° Max.	Must be free of Oil and Grease
Vacuum	✓	29.2” Hg (Diff.)	160° Max.	Min. Absolute Pressure: 750µm Hg
Carbon Monoxide (CO)	✗	—	—	Application(s) not approved.
Other				
Isopropyl Alcohol	✓	200 psi	Ambient ²	
Acetone	✗	—	—	Application(s) not approved.

¹ It is recommended to include labels identifying the media being conveyed.

² Ambient temperatures are assumed to be within the application's normal operating conditions and must not exceed the sealing element's temperature limitations (0°F to 250°F).

³ Application(s) not approved for use in Canada.

O-RING INFORMATION

About EPDM O-Rings

EPDM (Ethylene Propylene Diene Monomer) is an incredibly versatile sealing material resistant to aging, changing temperatures, certain chemicals, ozone, and sunlight. While extremely water-resistant, EPDM cannot withstand exposure to hydrocarbon solvents, mineral oils, and petroleum gas. It is best suited to applications involving water, steam, and certain gases.

The typical temperature range of applications utilizing EPDM o-rings is 0°F to 250°F. Be aware that certain applications may specify maximum operating temperatures that fall within this band, however, the sealing element's limits must not be exceeded.

Identifying HNBR O-Rings

EPDM o-rings are typically black. Certain fittings, primarily carbon steel, may utilize green dots to indicate to indicate the EPDM o-ring.



EPDM O-Ring



Ex: Green dot on a carbon steel fitting bead.