

## HDPE TECHNICAL INFORMATION

The following standard PowerSeal products have been evaluated and approved for use with high density polyethylene pipe based upon certain modifications and restrictions related to the unique properties of HDPE pipe compared with more commonly used rigid pipe materials.



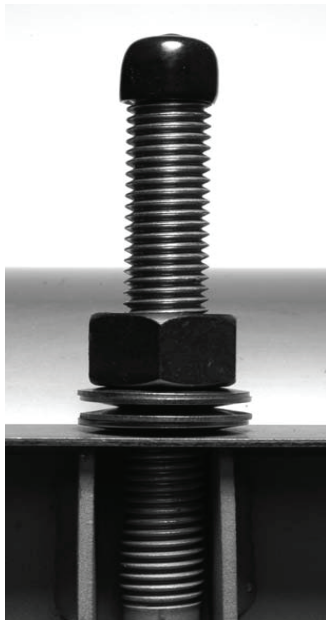
Products shown in the HDPE section are the only products suitable for HDPE applications. Do not use products in other sections on HDPE pipe.

### PRODUCT RESTRICTIONS WHEN USED WITH HDPE

- Maximum operating pressure: 150 PSI (150 Mpa)
- Temperatures ranges: 32° - 75°F (0° - 23.9° C)
- Manufacturing standard: AWWA/ANSI C906-90
- Underground service only
- Pipe Stiffeners must be placed in each pipe end when used on mechanical bolt on fittings
- Clamp and sleeve width must exceed pipe diameter
- Pipe SDR (wall thickness) no more than 17 (PN-10)
- Each bolt must have four spring washers

### KEY PROPERTIES INHERENT WITH HDPE

- Toe in happens when HDPE is cut which can alter the ability of any sleeve or saddle to seal and affect the installation of stiffeners.
- The coefficient of thermal expansion is over 10 times that of ductile and steel pipe and 3 times as much as PVC. This equates to the possibility of shrinkage at these same levels versus these types of pipes when it gets cold. This raises the chances of a fitting loosening on it. It also has a tendency to shrink lengthwise 1 inch (25.4mm) per 100 feet (30.48m) of pipe with a 10°F (5.5° C) reduction temperature. This results in the pipe pulling out of fittings.
- A low coefficient of friction makes the exterior surface of the pipe very smooth or slick which results in gasket fittings being prone to rotation or movement on the pipe.
- Pipe systems must be engineered to allow for pipe movements so to limit fittings movement.



All bolts will be supplied with four spring washer.

### SPRING WASHERS

### NOTICE!!

PowerSeal does not warrant products used when the installation does not conform to any of the restrictions listed above. Contact our engineering department if you have questions about using our products on HDPE.

