

**4725.2550 PLASTIC CASING AND COUPLING REQUIREMENTS.**

Subpart 1. **General requirements.** Plastic casing and couplings used in the permanent construction of a well or boring must:

A. meet ASTM Standard F480-02, except that flush threaded polyvinyl chloride casing must not be used except for a monitoring well or environmental bore hole; and

B. withstand internal pressures of 200 pounds per square inch (psi).

Standard dimension ratios (SDR) and water pressure ratings (PR) at 23 degrees Celsius (73 degrees Fahrenheit) for nonthreaded polyvinyl chloride (PVC) and acrylonitrile-butadiene-styrene (ABS) plastic casing equal to or greater than 200 psi are as follows:

(1) pressure rating of PVC casing materials:

SDR	PVC 1120	PVC 1220	PVC 2112	PVC 2116	PVC 2120
13.5	315 psi	315 psi	200 psi	250 psi	315 psi
17	250 psi	250 psi	-	200 psi	250 psi
21	200 psi	200 psi	-	-	200 psi

(2) pressure rating of ABS casing materials:

SDR	ABS 1316	ABS 2112
13.5	250 psi	200 psi
17	200 psi	-

The sources of the pressure rating in item B are the American Society for Testing and Materials Standard D2241-04a "Standard Specifications for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)" Table XI.I Standard Thermoplastic Pipe Dimension Ratios (SDR) and Water Pressure Rating (PR) at 73 degrees Fahrenheit (23 degrees Celsius) for Nonthreaded Plastic Pipe; and Standard D2282-99e "Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR)," Table XI.I Standard Plastic Pipe Dimension Ratios (SDR) and Water Pressure Ratings (PR) at 73 degrees Fahrenheit (23 degrees Celsius) for Nonthreaded ABS Plastic Pipe.

Subp. 2. **Additional approved fittings and couplings.** In addition to the plastic couplings approved under subpart 1, the following fittings and couplings may be used to connect a steel pitless unit or screen to plastic casing:

A. fittings or couplings with socket dimensions meeting the requirements of ASTM Standard F480-02, Table 3 and having a water pressure rating of at least 200 psi;

B. Schedule 40, slip x internal thread fittings, four-inch and smaller meeting the requirements of ASTM D2466-02; or

C. Schedule 40, slip x internal thread fittings and slip x external thread fittings, five-inch diameter meeting the requirements of ASTM D2466-02.

Subp. 3. **Compliance with ANSI/NSF standard required.** All plastic casings, couplings, components, and related joining materials including solvents, cements, or primers used in the construction of a well or boring must conform with the requirements of ANSI/NSF Standard 61-2003e or the health effects portion of ANSI/NSF Standard 14-2003 and be tested as conforming by an agency certified by the ANSI. Conformance to the ANSI/NSF standard must be coded, stamped, or marked on the casings, couplings, components, and related joining materials including solvents, cements, or primers.

**Statutory Authority:** *MS s 103I.101; 103I.111; 103I.205; 103I.221; 103I.301; 103I.401; 103I.451; 103I.501; 103I.525; 103I.531; 103I.535; 103I.541; 103I.621; 144.05; 144.12; 144.383; 157.04; 157.08; 157.09; 157.13*

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