

Department of Health**Proposed Permanent Rules Relating to Wells and Borings****4725.0100 DEFINITIONS.**

[For text of subparts 1 to 30m, see Minnesota Rules]

Subp. 30n. **Neat-cement grout.** "Neat-cement grout" means a fluid mixture in the proportion of 94 pounds of Portland cement and not more than six gallons of water. Bentonite up to five percent by weight of cement (4.7 pounds of bentonite per 94 pounds of Portland cement) may be used to reduce shrinkage. Not more than 0.6 additional gallons of water may be added for each one percent of bentonite. Admixtures to reduce permeability or control setting time must meet ASTM Standard C494/C494M-04. The minimum density of neat-cement grout using regular (Type I or II) Portland cement without bentonite or entrained air is 15.0 pounds per gallon. The minimum density of regular neat-cement grout with bentonite and without entrained air is:

[For text of items A to D, see Minnesota Rules]

[For text of subparts 30o to 34, see Minnesota Rules]

Subp. 34a. **Portland cement.** "Portland cement" means a:

A. construction material that conforms to ASTM Standard C150-04a, "Standard Specification for Portland Cement-"; or

B. Type II blended Portland-limestone cement that conforms to ASTM Standard C595, "Standard Specification for Blended Hydraulic Cements."

[For text of subparts 35 to 40, see Minnesota Rules]

Subp. 40a. **Rapid setting cement.** "Rapid setting cement" means a:

A. Type III Portland cement as designated in ASTM Standard C150-04a, ~~and~~;

B. Type IL-HE Portland-limestone cement as designated in ASTM Standard C595, "Standard Specification for Blended Hydraulic Cements";

C. API Class C cement; or

D. any Portland cement containing calcium chloride or sodium chloride in an amount between two and four percent by weight of Portland cement, or gypsum in an amount between 20 and 100 percent by weight of Portland cement.

[For text of subparts 40b to 54, see Minnesota Rules]

4725.0150 INCORPORATIONS BY REFERENCE AND ABBREVIATIONS.

This part indicates documents, specifications, and standards that are incorporated by reference in this chapter. This material is not subject to frequent change and is available from the source listed, for loan or inspection from the Minnesota Department of Health, or through the Minitex interlibrary loan system. To borrow or inspect a reference, e-mail the Minnesota Department of Health Well Management section at health.wells@state.mn.us, or go to Search Minnesota Department of Health Library and Beyond (www.minnesotadepartmentofhealthlibrary.on.worldcat.org/discovery). The abbreviations listed in parenthesis after the source name are used in this chapter.

[For text of items A to D, see Minnesota Rules]

E. ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

[For text of subitems (1) to (5), see Minnesota Rules]

(6) ASTM C595, "Standard Specification for Blended Hydraulic Cements."

~~(6)~~ (7) ASTM D2466-02, "Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40."

~~(7)~~ (8) ASTM D2487-00, "Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)."

~~(8)~~ (9) ASTM D2683-14, "Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing."

~~(9)~~ (10) ASTM D3035-15, "Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter."

~~(10)~~ (11) ASTM F480-02, "Standard Specification for Thermoplastic Water Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40, and SCH 80."

~~(11)~~ (12) ASTM F714-13, "Standard Specification for Polyethylene (PE) Pipe (DR-PR) Based on Outside Diameter."

~~(12)~~ (13) ASTM F876-20, "Standard Specification for Crosslinked Polyethylene (PEX) Tubing."

~~(13)~~ (14) ASTM F877-20, "Standard Specification for Crosslinked Polyethylene (PEX) Hot- and Cold-Water Distribution Systems."

~~(14)~~ (15) ASTM F1055-16, "Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Tubing."

~~(15)~~ (16) ASTM F1807-19b, "Standard Specification for Metal Insert Fittings Utilizing a Copper Crimp Ring, or Alternate Stainless Steel Clamps, for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing."

~~(16)~~ (17) ASTM F1960-19a, "Standard Specification for Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) and Polyethylene of Raised Temperature (PE-RT) Tubing."

~~(17)~~ (18) ASTM F2080-19, "Standard Specification for Cold-Expansion Fittings with Metal Compression-Sleeves for Crosslinked Polyethylene (PEX) Pipe and SDR9 Polyethylene of Raised Temperature (PE-RT) Pipe."

~~(18)~~ (19) ASTM F2620-19, "Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings."

[For text of items F to J, see Minnesota Rules]