

**WAC 296-307-40029 What requirements apply to filling densities?**

Filling density means the percent ratio of the weight of the gas in a container to the weight of water at 60°F that the container will hold. One pound of water equals 27.737 cubic inches at 60°F. To determine the weight capacity of the tank in pounds, the weight of a gallon (231 cubic inches) of water at 60°F in air must be 8.32828 pounds.

(1) The filling densities for nonrefrigerated containers must not exceed the following:

|                 | Aboveground | Underground |
|-----------------|-------------|-------------|
| (i) Uninsulated | 56%         | 58%         |
| (ii) Insulated  | 57%         |             |

(iii) DOT containers shall be filled according to DOT regulations.

This corresponds to 82% by volume at -28°F, 85% by volume at 5°F, 87.5% by volume at 30°F, and 90.6% by volume at 60°F.

(2) When containers are filled according to liquid level by any gauging method other than a fixed length dip tube gauge, each container should have a thermometer well so that the internal liquid temperature can be easily determined and the amount of liquid and vapor in the container corrected to a 60°F basis.

[WSR 97-09-013, recodified as § 296-307-40029, filed 4/7/97, effective 4/7/97. Statutory Authority: RCW 49.17.040, [49.17.]050 and [49.17.]060. WSR 96-22-048, § 296-306A-40029, filed 10/31/96, effective 12/1/96.]