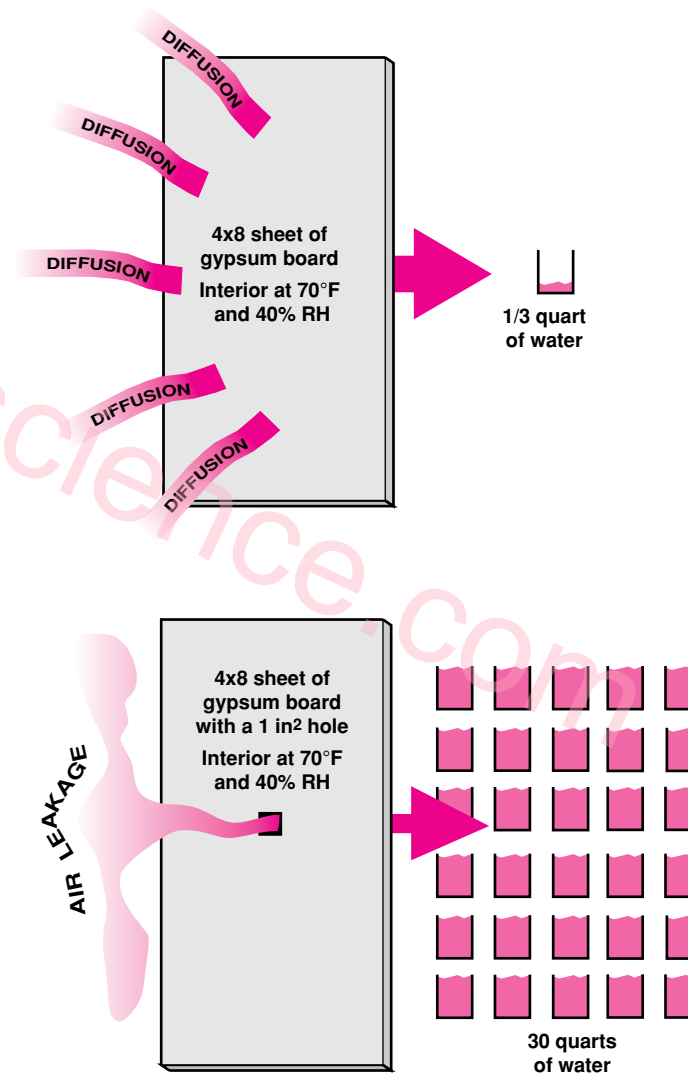


**Figure 3**  
**Permeability vs. Relative Humidity**

- Typical relationship between dry- and wet-cup methods and spot permeability for many hygroscopic building materials such as asphalt impregnated felt building papers, plywood, OSB and kraft facings on insulation batts
- $\mu_w \approx 2$  to 5 times greater than  $\mu_d$
- Wet cup testing occurs with 50% RH on one side of test specimen and 100% RH on other side
- Dry cup testing occurs with 0% RH on one side of test specimen and 50% RH on other side



**Figure 4**  
**Diffusion vs. Air Leakage**

- In most cold climates over an entire heating season,  $1/3$  of a quart of water can be collected by diffusion through gypsum board without a vapor retarder; 30 quarts of water can be collected through air leakage