



Vapor is water in its gaseous state. **Air can only hold so much vapor.** When the air becomes saturated with water vapor, the vapor condenses and returns to a liquid state.

Warm air holds more vapor than cold air. As the air becomes colder, the likelihood that vapor will condense and become liquid increases.

The role of a vapor barrier is to stop the passage of vapor into a building through its envelope.



Climate, temperature, building envelope material, and season complicate vapor barriers.

Vapor barriers and vapor retarders are related, but not interchangeable. Both are measured by **permeability**.

Only Class I Vapor Retarders can be classified as vapor barriers, being **vapor impermeable**.

Permeability is measured in perms.

Class I Vapor Retarders: 0.1 perms or less.

Class II Vapor Retarders: 0.1 to 1 perms.

Class III Vapor Retarders: 1 to 10 perms.

Vapor barriers can be created by closed cell spray foam, polyethylene sheeting, fluid-applied vapor barriers, and peel-and-stick membranes

