

Recommended Wine Cellar Construction Specifications

Temperature

A temperature of 50° F to 55° F and a Relative Humidity of 60% to 70% are ideal for long-term wine storage. A cool temperature slows the aging process, while high humidity helps to swell the cork, which minimizes oxidation. (Oxidation occurs when air reaches the wine.) Ultraviolet light penetration should be kept to a minimum.

Wine Cellar Construction

In order to maintain the ideal environment for your wine, we recommend that your conditioned wine cellar be constructed according to the specifications below. This will help ensure the efficient operation of your cooling system in order to provide the necessary temperature and humidity and will also prevent possible moisture damage to areas adjacent to the cellar.

Wall Insulation: minimum R-13 or better

Ceiling Insulation : minimum R-21 or better

Vapor Barrier

6 mil polyethylene walls and ceilings, installed between insulation and exterior sheathing. Rigid foam insulation is a little more expensive, but gives a greater R- value in thin walls. **Flooring: Recommended Products: brick, tile or stone (sealed) Cellar Door: Exterior grade insulated door with complete weather stripping and double insulated glass.

Actively Conditioned Wine Cellars

Even the basements of most modern homes are too warm and dry to passively provide the ideal conditions for wine storage. In most cases it is necessary to actively condition the environment inside the wine cellar. The most common conditioning unit on the market is a through-wall system that performs much like a room air conditioner. A crawl space, garage, workroom or utility area in your basement can be ideal for this. There are also more sophisticated cooling and conditioning units available known as split systems. While more expensive to purchase and install, these systems offer better

control of the environment and allow for tremendous flexibility of installation. With split systems, the condensing part of the system can be placed outside the home and piped to the evaporator inside the wine cellar.

Sheathing

*Note: When installing wood paneling in a wine cellar, allowance must be made for the expansion and contraction of the wood. Failure to do so may result in buckling and cracking of the wood.

R-Factor

The R-factor for a wine cellar door is R-7. R-factor refers to the thickness of insulation and its ability to resist heat transfer. The higher the number the more resistant it is to heat transfer.

Additional considerations: Wine should always be stored away from strong smelling compounds and foods. These odors can penetrate a weak cork and eventually change a wine's character.