

FIBERGLASS BATT INSULATION



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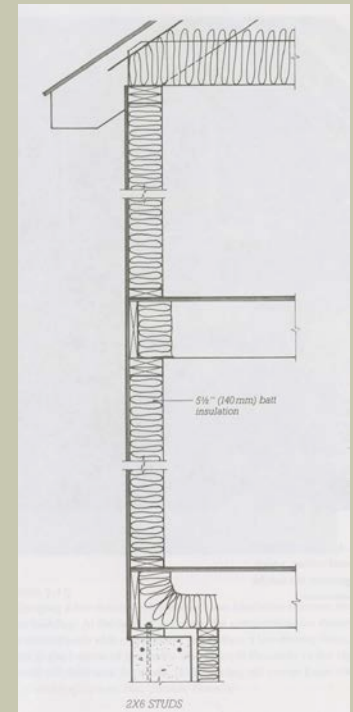
PRIOR INSULATORS AND HISTORY

- **Prior Insulators:**
 - Egyptians – Thick Mud Bricks
 - Greeks – Asbestos and Air Cavities
 - Romans – Cork
 - Middle Ages – Tapestries
 - Industrial Revolution – Asbestos
- **Created in 1932 by Dale Kleist**
 - Unintentionally discovered a way to produce fiberglass particles
- **Trademarked in 1938**
 - Fiberglas®
- **Used in clothing, boat hulls, fishing rods, cars, and home insulation**



USES IN BUILDING CONSTRUCTION

- Controls flow of heat, air, and moisture
- Helps to regulate a desired temperature
- Added to virtually all buildings to limit winter heat loss and reduce summer cooling loads
- Installed between framing members
 - Held in place either by friction or by a facing
 - Vertical, horizontal, and attic wall assemblies
- Advantages
 - Low in cost
 - Fairly high R-value (22-26)
 - Easy to install
 - Universal sizes



ORIGINS AND MANUFACTURING

- Variety of colors
- Commonly found in blanket form—known as batts
- Come in standard, precut lengths and widths
- Manufactured with a paper or foil backing
 - Backing faces warmth
- Made from
 - 35% recycled glass
 - Minerals such as sand and limestone
 - Sodium carbonate
 - Plastic and natural fibers
- Production process includes heating, blowing, and compression
- Nationally recognized manufacturers include Owens Corning, Johns Manville, CertainTeed, Georgia-Pacific
 - Owens Corning factory in Mt. Vernon, OH—280 miles from campus
 - Local home improvement stores



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