

# Polyurethane Insulation: Reducing Building Energy Consumption

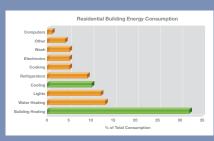
 ~40% of the overall U.S. energy demand goes into the building sector

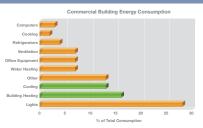


 ~40% of the energy used in buildings goes into heating and cooling



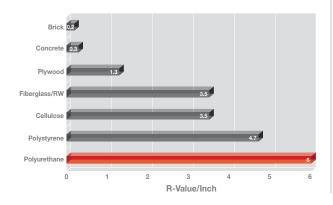
Source: EIA





### PU insulation products have some of the highest R-values

The higher the R-value, the better the material serves as insulation from heat transfer.
R-value is a measure of the thermal resistance of a material.



## PU insulation products help reduce energy loss through air infiltration

Air infiltration Un-insulated stairwell

Thermal bridging from metal studs and structural members

According to the U.S. Dept. of Energy (DOE), the average home spends \$1,300 annually on heating/cooling utility costs. Studies show that 40% of that energy is lost due to air infiltration.

Source: 2007 Building Energy Databook, Table 4.21, 2005 Energy Cost Data

#### PU insulation helps meet energy reduction targets

- Federal Buildings: Executive Order 13514 All new federal buildings net zero building energy requirement by 2030
- Architects: AIA 2030 target: net zero energy buildings by 2030
- Building Codes: Ashrae 90.1, IECC 2009 higher R-value requirements



#### Huntsman

10003 Woodloch Forest Drive The Woodlands, Texas 77380 Email: sprayfoam@huntsman.com www.huntsman.com/sprayfoam Tel: (281) 719-4914