

Industry News

New Sheathing Doubles Insulation Values of Conventional Materials in Homes and Buildings

Rubicon Chemicals Inc., today introduced a urethane laminate sheathing board called Suprathane[®]. The Federal Housing Authority (FHA) has issued a materials release for use of the product as a non-structural composite insulating sheathing board for one and two-family housing of wood frame or masonry exterior wall construction.

Tests show that this new type of building insulation board, when used with conventional insulation in both walls and ceilings and with double-glazed windows, cuts up to one half the energy requirements for heating and cooling homes and other types of buildings.

The company's announcement embraced three ideas:

1) The introduction of Suprathane sheathing board itself, a sandwich of urethane foam covered with protective materials on both sides. The material is a composite of aluminum foil over kraft paper interlaced with high strength glass fiber. This panel is most frequently 4 ft. X 8 ft. and 1-1/4 in. thick, with an R value (the common rating for insulation) of 13.2 in the wall system. Suprathane sheathing board alone exceeds the minimum HUD/FHA insulation standards established in November of 1974.

2) Suprathane, used with conventional 3-1/2 in. thick mineral wool blankets, provides in walls a combined R value of 22.7. This reduces by half the heating or air conditioning loss through the walls of a home or other type of building.

Rubicon Chemicals calls this dual insulation arrangement "Superwall".

3) The use of Suprathane with conventional insulation in walls and the ceiling plus double-glazed windows, which the company expects will be the future direction any builder would take. This reduces by up to half the total heating and air conditioning requirements for the entire building.

Rubicon Chemicals calls this

"Total Insulation System".

Rubicon Chemicals estimates that this third insulation plan, if used in the 500,000 new homes forecast for the U.S. in the second half of 1975, would save a total of 6 million barrels of crude oil in 1976 alone.

At an annual rate of one million housing starts per year, which is the current rate, the savings over a five-year span alone would be 180 million barrels of crude oil. After five years, the five million homes would be saving 60 million barrels each year.

Based on today's energy cost, a homeowner in Hartford, Conn., in a 1750-square-foot home with all electric utilities, and with the Total Insulation System rather than the ordinary insulation found in older homes, would save \$500 per year in heating and cooling costs. Electricity in Hartford costs 4.0¢/kwh.

A homeowner in Las Vegas, where the rate is 2.0¢/kwh, would save approximately \$171 per year.

A homeowner in San Antonio, Texas, where the rate is 3.5¢/kwh, would save approximately \$223 per year.

These comparisons assume an R22 in the Superwall and R30 in the ceiling vs. standard insulation found in older homes of R7 in the wall and R11 in the ceiling.

In most parts of the country for new construction, the additional cost of Suprathane sheathing board is saved immediately through savings in central air conditioning and heating equipment costs.

The insulation system using Suprathane sheathing board was developed by Rubicon Chemicals and United States Mineral Products Company, of Stanhope, N.J. Rubicon Chemicals Inc. is owned jointly by Uniroyal, Inc. and Imperial Chemical Industries Ltd. of London. Rubicon manufactures isocyanates, a major component of urethane foam. Uniroyal Chemical is the selling agent for Rubicon.

U.S. Mineral Products, a manufac-

turer of products for conserving energy since 1875, produces a broad line of mineral fiber and foam plastic materials for insulation, fireproofing, and acoustical treatment.

Rubicon and U.S. Mineral are licensing the rights to manufacture Suprathane[®], which will be available nationwide.

*Suprathane is a registered trademark of U.S. Mineral Products Co. Patents applied for.

FHA Materials Release

FHA Materials Release No. 872 covers this insulation sheathing board for use in one and two family homes of wood frame or masonry exterior wall construction. The materials release enables builders to use Suprathane in government insured mortgaged homes.

The release was based in part on a fire endurance classification of 47 minutes for the Suprathane wall without any other insulation in the ASTM E-119-73 test. This test was conducted for Uniroyal Chemical by Building Research Laboratory, College of Engineering, Ohio State Uni-



Donald A. Irwin, Sr., Uniroyal Chemical's Marketing Manager — Urethanes (left), and James Verhalen, President of U.S. Mineral Products Co., are holding a panel of Suprathane urethane insulating board.