

KIMBERLY-CLARK CORPORATION

ESTABLISHED 1872
Building Insulation Division
8 South Michigan Avenue, Chicago, Illinois
MANUFACTURERS OF
STITCHED EXPANDING BLANKET INSULATION
NEENAH, WISCONSIN

KIMSUL* is a wood fiber product manufactured by the KIMBERLY-CLARK CORPORATION, who have been making wood fiber products since 1872.

KIMSUL is produced in long, continuous flexible blankets, composed of many creped layers or plies, providing a maximum number of dead air cells. The

finished blanket is firmly stitched, assuring a durable, yet completely flexible blanket of high insulation efficiency, which is easy to handle and install.

KIMSUL is delivered in cartons containing sufficient KIMSUL to insulate 250 sq ft in Commercial thickness; or 125 sq ft in Standard thickness; or 83½ sq ft in Double-Thickness.

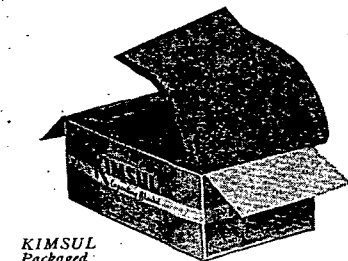
PHYSICAL PROPERTIES

1. Thermal Efficiency—KIMSUL'S conductivity is .27 Btu hr/sq ft/°F/inch (J. C. Peebles)—one of the most efficient heat "Blockaders" developed. This conductivity is at the extremely low installed density of 1.57 lb per cu ft... installed density maintained by stitching.

2. Flexibility—Flexible as a blanket, KIMSUL fits snugly. It can be tucked behind wire and piping, moulded to the shape of non-standard-size openings, pulled over or around corners, and packed into cracks, around doors and window frames.

3. Permanence—KIMSUL is inherently permanent because it is made of chemically purified wood fibers and asphalt—its lasting qualities are improved by its processing.

4. Will Not Shred or Sift—Each blanket of KIMSUL is composed of many creped layers or plies, strongly stitched together. The fibers are fastened to one another in each ply to form a strong yet flexible web.



KIMSUL
Packaged
for Shipment

UNIQUE PROPERTIES OF EXPANSION AND STITCHING

Expandability—Delivered to a job in a compressed form, each blanket of KIMSUL, when installed, is expanded to about 5½ times its original length without decreasing the intended thickness or lessening its heat stopping ability.

Speeds Work—Lowers Cost—Because KIMSUL is delivered in compressed form it is easier to handle; storage costs are reduced—and it goes up quickly.

KIMSUL blankets are made in widths to fit snugly between studding and rafters—little measuring or fitting is necessary. Using shipping carton as a dispensing container, the end of KIMSUL blanket is nailed on at the top—blanket expanded and attached at bottom—then cut off. That is all there is to it.

Stitching Controls Efficiency and Permanence—Each blanket of KIMSUL, before being compressed, is stitched its entire length with rows of twine approximately 20 times stronger than necessary to support its entire weight. This prevents KIMSUL from being expanded beyond its most efficient density. It also prevents sagging and helps to hold KIMSUL in place permanently.

*Reg. U. S. & Can. Pat. Off.

KIMSUL Presstitched BLANKET INSULATION

PHYSICAL PROPERTIES—Cont.

5. Moisture and Fire Resistant—KIMSUL resists water and fire. Even when exposed to flame temperature of 2000 F KIMSUL merely chars. It does not produce spontaneous combustion.

6. Lightness—At Standard Thickness (1 in.) KIMSUL has an installed density of 1.57 lb per cu ft. Installed, 1000 sq ft of it weighs only 131 lb. Thus KIMSUL adds relatively little weight to structural load of a building.

PROPER THICKNESS FOR AVERAGE REQUIREMENTS

To calculate what thickness of insulation will provide the desirable balance between costs and the benefits produced, it is necessary to have information concerning the specific job. The severity of the climate, the price of the fuel to be used are important considerations.

In most cases, however, it will be found that the standard one-inch thickness of KIMSUL is not only sufficient but that this thickness stops the greatest proportion of heat losses in winter, and the greatest proportion of heat infiltration in summer, at the least cost.

HEAT LOSSES THROUGH WALLS, ATTICS AND ROOFS

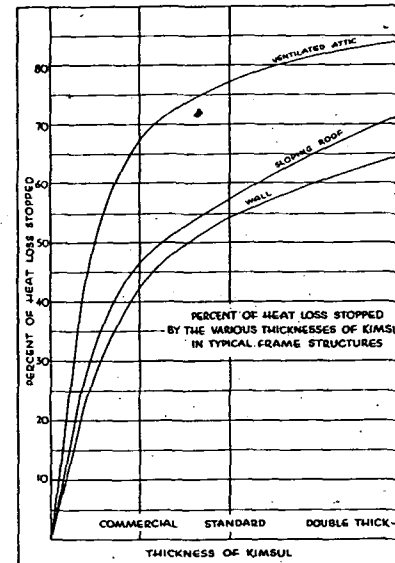
The effectiveness of KIMSUL in reducing heat flow varies somewhat, depending on type of structure insulated. The Figure at lower left shows relationship between insulation thickness and the heat stopped, expressed as per cent of heat flowing through an uninsulated structure.

Note that depending upon the structure insulated, the per cent of heat stopped by Standard Thick KIMSUL varies from 54 per cent to 77 per cent.

When a normal frame wall is considered, 1 in. of KIMSUL stops 54 per cent of heat which would be lost through the uninsulated wall. By adding another inch of thickness this percentage is increased to 65 per cent—so the second inch of insulation is responsible for stopping only an additional 11 per cent. If wall thick insulation is used, total heat stopped is only increased to about 73 per cent.

Looking at it another way—by taking the maximum heat stoppage through wall insulation as 100 per cent—1 inch of KIMSUL stops 74 per cent of all the heat that can be stopped by insulation.

So it is evident that it is the first inch which does the most work.



Graph shows how effectively KIMSUL reduces heat flow through typical frame structures. Note that greatest proportion of heat losses are stopped by the first inch of KIMSUL.

It must, however, be borne in mind that stopping 75 per cent of the heat losses, by insulating walls and roof, does not mean a fuel savings of a like amount. Usually half of the wall area is made up of doors and windows and heat losses through them must also be considered.