Fir-Tex and the Merchandising System of the Fir-Tex Company

by

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A Thesis
Presented to the Faculty
of the
School of Forestry
Oregon State College

In Partial Fulfillment
of the Requirements for the Degree
Bachelor of Forestry
May 1942

Approved: ____________________________

Professor of Forestry
ACKNOWLEDGEMENT

I wish to make special acknowledgement to Mr. Glenn W. Cheney of Dant and Russell, Inc., of Portland, Oregon. It was through Mr. Cheney that I obtained much pertinent data concerning this subject. I also wish to thank the entire office force of the Fir-Tex Department for their wonderful cooperation in aiding me in obtaining data and that advertising material which has proven to be very useful in the preparation of this thesis.
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FIR-TEX AND THE MERCHANDISING SYSTEM OF THE FIR-TEX COMPANY

Introduction

Before any specific data upon the Merchandising System of Fir-Tex can be given, it is necessary to pave the way by giving the reader some sort of a background of the subject matter to be dealt with. With this in mind I decided that probably the best method of attack would be through a short discussion of the historical background of the subject. Then I will deal with the manufacturing process and a general description of the final products. After this the Merchandising System will be gone into, with such things as the plan, the office force, office procedure, and advertising being considered. The final portion of the thesis will deal with a short conclusion and a page dealing with the source of information for this paper.

Chapter One

HISTORICAL BACKGROUND

As all industries or companies must have a beginning in some shape or form, so did Fir-Tex. Many years ago when insulation board was being made of such things as sugar cane and corn stalks, it so happened that several men connected with this type of industry came to the Douglas-fir region for a short visit. Here they saw
material for fibre board. This was mainly in the form of slabs, low grade logs, and pieces of lumber and trims too small for use for construction purposes. They had visions of a large, modern plant busily at work turning out large quantities of super insulation fibre board.

It was then and there decided that such a plant could be constructed at St. Helens, Oregon. This city is in the heart of the Douglas-fir region and is connected with the rest of the United States by highway, railway, and natural waterways. Of course the first problem was to obtain financial aid to promote the project. With this in view the Fir-Tex Company was formed and western capital was collected by loans and stocks and bond sales. A total of two and one-half million dollars was then invested in the plant. This was done in 1928, and in 1929 the plant was started, and on the first day of August, 1930, it was finished and ready to begin operating.

During the time when the plant was being built, it was decided that the name of the product should be Fir-Tex, and it was to be termed "Nature's Gift from the Great Northwest."

The first sales began as the plant started operations. However, the plant did not run steadily until along in the first of 1935. Between 1930 and 1935, the plant ran some years only two months, other years four months, and so on. However, in 1937 it ran every month of the year, though only sixteen or eighteen days per month. Soon after this
business began to pick up, and in 1940 operations went on a seven day week with a twenty-four hour day. Every since then it has been running on this schedule except for necessary shut-down periods for repairs.

This concludes the discussion of the historical background and the next chapter will deal with the manufacturing process.

Chapter Two
MANUFACTURING PROCESS

The manufacturing of Fir-Tex is a very unique process and is carried out in a factory that is set up for maximum efficiency by straight-line production. The first step is securing the raw material. This is in the form of Douglas-fir chips that are either bought in the chip form or by chipping logs and trims of the plant itself. Raw materials in the form of chips are brought to be plant by barge or railway. Those chips that are manufactured at the plant are bought in the form of slabs, trimmings, or low grade peeled logs.

After the chips are at the dock, they are transferred into the plant on a flat rubber belt. From this belt they are conveyed upward by a bucket elevator to another flat rubber belt. This belt carries them to a storage unit directly above the digesters.

When the cooking process is to be started, a trap door is opened and the chips drop into the six digesters.
These are huge drums made of sheet metal joined by rivets. After the digesters are filled to the proper level, live steam is put into the drums and the cooking process begins. During this time the digesters revolve slowly until the cooking process is finished. When this is over, the doors of the digesters are opened and the cooked chips fall to the floor of the pit below them.

From this pit the chips transferred by a screw conveyer to the shredder. This machine separates the wood fibres and dilutes them with water to form a thin soup-like mixture. Next it is pumped through the refiners that further separate the fibres of the wood.

The next step in the manufacture is to pump this pulp through to the "Fourdrinier Board Forming Machine." This machine is very similar to machines used in paper making. It is mainly a fine mesh "wire" upon which the pulp flows and is carried forward by the motion of the "wire." Through the "wire" the excess water is drawn away by first seeping through the mesh, next by suction bores, and lastly by being carried through pressure or squeeze rolls. As it comes out of the "Fourdrinier" the board is cut into eight foot widths. The saw that cuts this is very unique in that it makes a square cut in the pieces as it moves along.

From here the board moves on into the kiln where all moisture is removed. This kiln is 365 feet long and has controlled constant temperature so that a uniform drying
rate exists.

Next it is placed in finishing room to be squared, painted, and glazed. At this point it is either wrapped in 100-lb. Kraft paper or packed in boxes. From here it is moved to the warehouses where it is stored until called for shipment.¹

For a complete picture of the process see Figure I on the following page.²

1. This material on manufacturing was obtained from the Fir-Tex Sales Manual and Figure I.

2. Figure I is "The Story of Fir-Tex." It is obtainable from Dant and Russell, Inc., of Portland, Oregon.
THE STORY OF FIR-TEX
from clean, sound wood chips to superior insulation
Chapter Three

DESCRIPTION OF THE FINISHED PRODUCT

Exterior Wall Sheathing

This type of sheathing is used to replace shiplap sheathing on both walls and roofs. It comes in pieces that are 25/32 inch by 2 feet by 8 feet, or 25/32 inch by 4 feet by 8 feet and is all asphalt treated. The advantage of it is that it goes up much faster, gives greater bracing, and will cut fuel costs much more than will the mere use of shiplap sheathing. After the asphalt sheathing is nailed in place, the outside finish may be put directly on with no need for tar paper between the layers. Also, instead of putting an outside finish over the Fir-Tex, it may be painted and used in itself as the outside sheathing. When this is done, the Fir-Tex is given several coats of paint and then wood battens and wood trim nailed over the joints. The use of sheathing for outside finish is very desirable for use in cheap construction that will be quite durable and warm.

Plaster Base

Plaster base Fir-Tex is applied to the interior wall when a plaster finished is desired without the use of lath. It has the advantage of quick application and added

3. The material on Finished Products was obtained from "Fir-Tex Insulating Board" 1942 Edition and from the Fir-Tex Sales Manual.
insulation value. This product comes in the form of lath or asphalt coated lath and with a choice of either ship-lap or V-type joint. It is 1/2", 3/4", or 1" thick, by 18" wide by 48" long. After the Plastic base lath is nailed on, metal corner beads applied, and plaster may then be applied.

**Interior Finish**

Interior finish is made for the purpose of applying to a room where no other finish is desired. For this work there are three forms available. The first is Fir-Tex building board. This board comes in widths of 1/2", 3/4", 1", 1 1/2", and 2" for the Natural Tan, and in Ivrykote, Wheatkote, Greenkote, Blukote, and Aprikote in the 1/2" thickness. It is 4' wide and in lengths of 6, 7, 8, 9, 10, and 12 feet. This product is washable, non-fading, and is used as interior finish for walls and ceilings. It also has the added advantage of greater insulation and acts as a sound deadener.

The next type of Interior finish is Fir-Tex Tile. This tile has the same advantages and is used similarly to Building Board. The only difference is that the tile needs a solid backing to be nailed or glued to. It comes in Ivrykote in thicknesses of 1/2", 3/4", and 1", and in the 1/2" size is also available in Whitkote, Wheatkote, Greenkote, Blukote, and Aprikote. Also a tile sprayed with special acoustical paint is available. The sizes for all tiles are 12" x 12", 12" by 24", 16" by 16",
16" by 32", 18" by 48", 24" by 24", and 24" by 48". It also has either a tongue-and-groove, or beveled joint which makes a "V" when two pieces are put together. The main use of this tile is for decorative interior finish for walls and ceilings.

The last type of interior finish is Fir-Tex Plank. The plank is very similar to Building Board as it comes in Ivrykote, Wheatkote, Greenkote, Blukote, Aprikote, and plank that is sprayed with special acoustical paint. It also comes in 1/2", 3/4", and 1" thickness. However, this plank is made in sizes of 6", 8", 10", 12", and 16" wide by 8', 10', 12' long and is made with a tongue and groove joint either with or without a bead. This bead is a groove that runs along parallel to the joint and is purely decorative in form. As in the other types of interior finish, Fir-Tex Plank gives added insulation, sound control, and may be put in place by either nails or acoustical cement.

Acoustical Tile

Acoustical Tile is used in theaters, churches, schools, broadcasting stations, auditoriums, stores, offices, and any type of building in which it is desired to absorb sound and control acoustics. It is also desirable as a beautifying agent in such buildings. This tile comes in 1/2", 3/4", and 1" thicknesses; low, medium, and standard densities; and either white, ivory, cream, or buff color. It may be applied by either nailing or cementing with acoustical cement.
Roof Insulation Board

Roof Insulation is a low density board made especially to prevent excess heat loss through the roofs of buildings. It is made with either square or offset edges and comes in widths of 1/2", 1", 1 1/2", 2" or any thicker width desired will be made by lamination upon special order. The Standard size is 24" by 48" for the square edged stock, and 22" by 47" for the offset edged stock. This roofing stock is applied by either cementing with hot asphalt or nailing and applying a final coat of hot asphalt over the top of the board.

Refrigeration Insulation Blocks

These blocks are of low density board made especially for the high insulation value needed in refrigeration and cold storage construction. These blocks may be also used for the lining of concrete forms. This use has the advantage of a seamless and smoother finished concrete job over the use of shiplap forms. It is available in widths of 1" and 1 1/2" without lamination or 2", 3", and 4" widths by lamination construction. The standard sizes are 12" by 36", 18" by 36", and 24" by 48".

Hardboard Products

I. Super Hardwall:
1/4" by 4" by either 1', 1 1/2', 2', 3', 4', 5', 6', 7', 8', 9', 10', or 12'.

II. Hardboard (Untempered)
1/10" by 4' by 12'
1/8" or 3/16" by 4' by either 1', 1 1/2', 2', 3', 4', 5', 6', 7', 8', 9', 10', or 12'.
1/4" or 5/16" by 4' by 12'.
III. Tempered Hardboard.
Same sizes as untempered Hardboard.

IV. Black Tempered Hardboard.
1/10" by 4' by 12'
1/8" or 3/16" by 4' by either 6', 8', 10', or 12'.
1/4" or 5/16" by 4' by 12'.

V. Tempered Hardboard Tile
1/8" by 4' by either 6', 8', 10', or 12'.
3/16" by 4' by 12'.

VI. Exposition Flooring
11 3/4" by 23 1/2" or 23 1/2" by 47".

VII. Other products handled are Masonite and Coralite.

Chapter Four
MERCHANDISING SYSTEM

Introduction

In August 1930 Fir-Tex began rolling out of the plant and at this time merchandising began. At first selling was handled by the plant itself with little or no system in mind. It was merely an attempt to sell throughout the entire United States. However, because it lacked proper organization, the system failed to obtain results. After several years of this, the handling of the entire output of the plant was taken over by Dant and Russell, Inc.

Merchandising Plan

The first step in setting up of any type of a merchandising system is to obtain or decide upon a suitable Merchandising Plan. With this in view the Fir-Tex Department of Dant and Russell began looking around and finally decided upon the Franchise Plan. This plan is so called be-
cause it operates through a group of so called Franchise Holders. Before proceeding it is wise to obtain a clear cut definition of a Franchise Holder. "A Franchise Holder is an individual or company, having been established as a marketer of building material. It is someone who knows the back doors as well as the front doors." These Franchise Holders obtain their goods from the General Distributor, which is Dant and Russell, Inc., and in turn sell to wholesalers, jobbers, and dealers that are in their respective districts. These Franchise Holders are located throughout the United States and are the sales representatives for the General Distributor in their district. The Franchise Holders as they now exist are listed below:

1. Fir-Tex of Colorado, Denver, Colorado
2. Fir-Tex of Florida, Fort Lauderdale, Florida
3. Fir-Tex of Georgia, Atlantic, Georgia
5. Fir-Tex of Iowa-Nebraska, Omaha, Nebraska
6. Fir-Tex of Maryland, Baltimore, Maryland
7. Fir-Tex of Michigan, Detroit, Michigan and Grand Rapids, Michigan
8. Fir-Tex of Minnesota, St. Paul, Minnesota
9. Fir-Tex of Missouri, St. Louis, Missouri
10. Fir-Tex of Missouri-Kansas, Kansas City, Missouri
12. Fir-Tex of Ohio, Cleveland, Ohio
15. Fir-Tex of Utah, Salt Lake City, Utah.
17. Fir-Tex Metropolitan, New York, N. Y.
18. Fir-Tex Southwestern, El Paso, Texas
19. Fir-Tex Western, Edmonton, Canada

4. This definition was obtained from Mr. Glenn W. Cheney, Head of the Fir-Tex Department.

5. Fir-Tex Sales Manual
As was stated before this representatives sell Fir-Tex in their districts and are thus representatives of Dant and Russell, Inc.

Of course it can easily be seen that these Franchise Holders will not reach all of the people through the entire United States. To offset this Dant and Russell sells direct to such costumers as are not in contact with the representatives. A complete diagram of this is shown in Figure II on the following page. This shows the set-up for selling through the Franchise Holders and the direct selling by Dant and Russell to jobbers, dealers, roofers, and various other industrials.

This concludes the complete description of the Fir-Tex Merchandising plan.

Office Force

As originally started the force consisted of one man and several stenographers who took charge of all business concerned with Fir-Tex. This man was Mr. Glenn W. Cheney who is at present head of the Fir-Tex Department of Dant and Russell. However, as time went on it became increasingly clear that a much larger force was necessary to keep up with the work. Because of this need, the office force was

6. Adapted from the Fir-Tex Sales Manual. The section regarding the Merchandising Plan.
Figure II
DIAGRAM OF FIR-TEX MERCHANDISING PLAN

Where No Other Representation

Plant
General Distributors
Dant and Russell
Portland, Ore.

Franchise Holders

Jobbers

Dealers

Such as

Sell Direct To

Where No Other Representatives

Sell Direct to

Industrials

Roofers
added to until today it numbers eight persons directly employed within the department. These are as follows: Mr. Cheney, Mrs. Reed, Mr. Frank, Mr. Burt, Mr. Gilbert Cheney, and three stenographers.

In addition to these there are several department outside of the Fir-Tex which is connected with the work of the Fir-Tex Department. On the Invoice Department is Mr. Allwarder and Betty Joyce, and in the Bookkeeping Department is Mr. Johnston, Mr. Howlett, Mr. Whitbread, Mr. Hatcher, and Miss Hunter.

Office Procedure

As all offices have an entirely different procedure in the handling of their business, I will briefly describe that of Dant and Russell in regards to the Fir-Tex Department.

When dealing with Franchise Holders, there are two separate methods. The first is what may be called a warehouse plan. In this plan the Franchise Holder has a warehouse which is stocked by the General Distributor. As sales are made, the stock is delivered from the warehouse by the Franchise Holder and all office work and records are kept by them. At the end of each month a check for the stock is sent to the main company for what has been sold. The Franchise Holder is responsible for the sending of complete records of inventory sold and on hand, to the head office. From this inventory a check on sales, completeness of their inventory, and factors concerning when and of what
type of new stock should be sent to them, is had at all times.

In the other case, the Franchise Holders act more or less as a salesman or representative of the Fir-Tex Department. They make the sales and send in orders and payments to the Fir-Tex Department. The department in turn keeps all records and books for these sales, sees that the orders are shipped, and makes payment for services to the Franchise Holders. In this case the office procedure is the same as if the sales had been by the General Distributor itself.

I will now attempt to clarify the office procedure by following an order completely through the office. The first step is to obtain the order. To do this either a salesman contracts for and sends said order in, or the customer himself sends in his order for a certain amount of a specific type of Fir-Tex. This order is then typed out on a Dant and Russell form with a definite order number and with one copy going to the plant at St. Helens, one to the customer, as a confirmation, and one each for the order files of the Fir-Tex Department and the Invoice Department. When the plant receives their copy, they at once start to fill it. As soon as it is completed and loaded in the car, it is shipped to the customer and a plant invoice is sent to Dant and Russell. Dant and Russell then pays the plant for the order and proceeds to invoice the customer. Invoicing is done by pulling the order from the order file and making out a rough invoice in the
Invoicing Department. This rough form then goes to the Fir-Tex Department where it is typed out on invoice form. It is then sent to the Bookkeeping Department. At this point the pulled orders are filed in the permanent shipped order file. The bookkeepers check the extensions of price, item of profit, addition of freight and stopover charges, deduction for prompt payment, and the final total due. After this it goes back to the Invoice Department where it is again checked for typographical errors. Here one copy is pulled for the bookkeepers files and the remaining portion sent to the Fir-Tex Department. Next this department makes out the copy for their files and the invoice is sent to the customer with a copy to the salesman. The copy retained for the bookkeepers is filed in their invoice file. From this file it is posted to the debit side of an Accounts Receivable ledger. This ledger contains a section for each customer and shows his balance due. The invoice is now on the books and remains there permanently. As the customer receives his invoice and the shipment of goods, he pays Dant and Russell by check, if he is a good payer. This check is then entered into the Cash Receipts Journal and deposited to Dant and Russell's balance at the bank. From the Cash Receipts Journal it is posted to the credit side of the ledger containing the customer's account. At the end of each month the debits and credits of each customer are balanced and a statement sent to him. When this balance is paid, the account is ruled across showing that there is no outstanding balance due. At this point the order is
completely finished. However, if he does not settle his balance due after a certain period, it is either written off as a bad debt or given to Dun and Bradstreet for collection by them. Finally after all these processes are carried through, the order is completely finished.

This is a very brief discussion of the office procedure used and amount of work and records necessary for the merchandising of Fir-Tex.

Advertising

Introduction:

One of the main points that is concerned with the merchandising of any product is the use of advertising. The purpose of such advertising is to bring the product before the eyes of the consuming public and to show them the advantages of the product. Also, in the present day, there is a definite ratio between the amount of advertising and the volume of sales. With this in mind the Fir-Tex Department developed their plan of advertising so that an attempt to contact the general public is made. "Fir-Tex Kills Two Birds with One Stone" or "it replaces ordinary structural material and provides insulation at the cost of insulation alone" is the advertising theme.

Method of Financing

Of course in setting up an advertising plan, it is necessary to provide a means of paying for the cost of

7. Fir-Tex Sales Manual dealing with advertising.
such advertising. Dant and Russell realized this fact and decided that not only should they, but also the Franchise Holders, who receive benefit from such advertising, contribute to the fund from which the cost is to be paid. For their share they have set up a definite fund. This is based upon a liberal percentage of sales for the previous year. Thus the amount of this fund depends upon the amount of sales made in the year previous to the year for which the money is to be spent. For the franchise holders share, they are billed 25¢ per thousand square feet of Fir-Tex that they handle. This sum is set up under their name on the books of Dant and Russell as a credit. As material is obtained from the head office a debit is posted to counterbalance the credits. In addition to this the Franchise Holder is given a Sales Manual as an aid in understanding the features of Fir-Tex.

Magazine Advertising

Magazine advertising is one of the best methods of advertising in use today. It contacts the majority of those people who would be interested in the product and who are thus the prospective customers. These people may be defined as the home builder or owner, the general contractor and builder, the architect, and the dealer. In order to reach all of these people, Dant and Russell advertises in the "American Home," "American Builder," "Architectural Forum," and the "American Lumberman." The "American Home" is one of the fastest growing home
magazines in America. Also the "American Builder" is perhaps one of the major magazines that reaches builders and contractors. Likewise the "Architectural Forum" is one of the leading architect's magazines. Last but not least the "American Lumberman" is subscribed to by lumber dealers throughout the United States. Figure III showes the advertising space occupied by Fir-Tex advertisements during 1938. 8

Figure III
FIR-TEX MAGAZINE ADVERTISING SPACE

<table>
<thead>
<tr>
<th>Publication</th>
<th>Circulation</th>
<th>No. Inserts</th>
<th>Total Messages</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>1938</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Home</td>
<td>1,250,000</td>
<td>1</td>
<td>1,250,000</td>
<td>1 page</td>
</tr>
<tr>
<td>American Home</td>
<td>1,250,000</td>
<td>9</td>
<td>11,250,000</td>
<td>1/2 &quot;</td>
</tr>
<tr>
<td>American Builder</td>
<td>66,964</td>
<td>2</td>
<td>133,928</td>
<td>1 &quot;</td>
</tr>
<tr>
<td>American Builder</td>
<td>66,964</td>
<td>10</td>
<td>669,640</td>
<td>1/2 &quot;</td>
</tr>
<tr>
<td>Arch. Forum</td>
<td>37,305</td>
<td>6</td>
<td>223,830</td>
<td>1/2 &quot;</td>
</tr>
<tr>
<td>Amer. Lumberman</td>
<td>11,468</td>
<td>6</td>
<td>68,808</td>
<td>1/4 &quot;</td>
</tr>
</tbody>
</table>

These advertisements contain coupons that may be clipped and sent to the representatives. Also these coupons are placed in magazines other than the ones shown above. The purpose of said coupons is to obtain an idea of persons interested in Fir-Tex, and to send to them addition data on Fir-Tex in the form of catalog and pamphlets. Some of catalog and pamphlets that are sent out upon request are shown in Figures IV, V, and VI.

This concludes the discussion of magazine advertisement.

8. From the Fir-Tex Sales Manual dealing with Magazine Advertisement.
Figure IV

TYPICAL ADVERTISING PAMPHLETS SENT OUT BY DANT AND RUSSELL
You Get Better Insulation at Less Cost with FIR-TEX Roof Insulation Board

There is a growing recognition of the need for insulation in commercial and industrial buildings. The first point to be insulated in almost any building is the roof. To fill the need for a superior roof insulating material, Fir-Tex has developed this board.

Fir-Tex Roof Insulation Board has many points of superiority. First of all, it is made by the exclusive Fir-Tex process, by which natural fibres of sound wood are sterilized and then felted together into boards possessing tremendous insulating qualities.

A quarter-million square feet of Fir-Tex is used for roof insulation in this warehouse of Joseph E. Seagram & Sons, Inc., Louisville, Ky.

Fir-Tex Roof Insulation is installed in this plant of the General Brewing Corporation, San Francisco.

Fir-Tex Insulation Board is made up to 1 3/4-inch in thickness without lamination. This factor reduces application costs by eliminating extra mopings. Less asphalt is required than with a thin board which requires more than one layer. And the less asphalt the greater the insulation.

Fir-Tex fibres are waterproofed in the manufacturing process, giving you added protection.

OUTSTANDING USERS of Fir-Tex Roof Insulation Board include:

Seagram's Distillery... Louisville, Ky.
Seagram's Distillery... Lawrenceburg, Ind.
General Brewing Company... San Francisco, Calif.
Newark Airport... Newark, N.J.
Old Harbor Federal Housing Project... Boston, Mass.
Will Rogers Memorial Federal Housing Project... Oklahoma City, Okla.
Jane Addams Housing Project... Chicago, Ill.
Times Bldg... Seattle, Wash.

Fir-Tex Roof Insulation is installed in this plant of the General Brewing Corporation, San Francisco.

In applying Fir-Tex Roof Insulation Board, follow standard practices. The diagrams below indicate most popular methods.

United States Postoffices at:

Marysville, Calif. Klamath Falls, Ore.
Oakland, Calif. Oregon City, Ore.
Petaluma, Calif. Portland, Ore.
San Jose, Calif. Kingsville, Tex.
San Ysidro, Calif. Dalhart, Tex.
Long Beach, Calif. Metalline Falls, Wash.
Winona, Minn.

Typical Advertising Pamphlets Sent Out By D
You Get Better Insulation at Less Cost with FIR-TEX Roof Insulation Board

There is a growing recognition of the need for insulation in commercial and industrial buildings. The first point to be insulated in almost any building is the roof. To fill the need for a superior roof insulating material, Fir-Tex has developed this board.

Fir-Tex Roof Insulation Board has many points of superiority. First of all, it is made by the exclusive Fir-Tex process, by which natural fibres of sound wood are sterilized and then felted together into boards possessing tremendous insulating qualities.

A quarter-million square feet of Fir-Tex is used for roof insulation in this warehouse of Joseph E. Seagram & Sons, Inc., Louisville, Ky.

There's a special Fir-Tex building board for each of these jobs

Fir-Tex "Firkote" for Sheathing

Save money by using Fir-Tex Firkote as sheathing. Instead of applying sheathing lumber and paper plus insulating board, do both jobs in one operation and at one cost by applying Fir-Tex Firkote.

Fir-Tex Insulating Plaster Base Lath

This is the modern plaster base. Nail it directly on studding, and apply plaster. You get a smooth, crack-resistant finish. And in addition you get highly efficient protection against heat, cold, noise.

Fix-Tex"Ivrykote" for Interior Finish

This super-insulating board has a smooth, mottled-ivory surface. It is popular as an interior finish. The surface is washable. It may be used with its original surface, or may be further decorated without sizing.
Lower Application Cost
Greater Effectiveness

Firkote Sheathing
BUILDS HOMES THAT ARE BETTER 9 WAYS

Insulates AS IT Beautifies

Figure IV
TYPICAL ADVERTISING PAMPHLETS SENT OUT BY DANT AND RUSSELL
Fir-Tex
Firkote Sheathing
builds homes that are better
9 ways

Fir-Tex Firkote Sheathing is a wood fiber insulating board, waterproofed with asphalt, made in large sheets which are entirely free from knotholes and cracks. It is used on the outside walls and roof, nailed to the studding and rafters thus insuring insulation continuity. Firkote Sheathing completely seals the skeleton of the house from basement to attic and from eave to eave, insulating and protecting it from the elements at the cost of insulation alone. Firkote Sheathing builds and insulates homes that are better in these 9 ways:

1. **Stronger**
   Building engineers employed by the Robert W. Hueb Co., well known Chicago testing engineers, made exhaustive tests and found that Fir-Tex Sheathing has many times the bracing strength of ordinary wood sheathing.

2. **Warmer**
   Fir-Tex Firkote Sheathing insulates, as it builds. Keeps furnace heat from leaking out sidewalls and roof.

3. **Cooler**
   Just as Fir-Tex keeps furnace heat in, so it keeps the sun's heat out. Even attics can be kept comfortably cool if the roof is Fir-Texed before the application of shingles.

4. **Quieter**
   A home with Fir-Tex Firkoted walls and roof is a haven of quiet. Street noises are subdued.

5. **Drier**
   Fir-Tex Sheathing is waterproofed with asphalt and keeps out rain and moisture which is of particular importance should leaks in shingles or exterior finish occur.

6. **Termite proof**
   Fir-Tex Sheathing is made from sound wood fibers, sterilized and felted into strong boards and specially treated to repel termites, other insects, rodents and vermin.

7. **Does 2 jobs at 1 Cost**
   Insulates as it builds, provides sheathing for sidewalls and roof plus insulation at the cost of sheathing alone. Fir-Tex usually costs no more than ordinary wood sheathing and building paper, and often less.

8. **Cuts fuel costs from 20% to 35%**
   Comparative records show that homes with Fir-Texed walls and roof effect fuel savings of from 20 to 35 per cent.

9. **Less expensive heating plant needed**
   Fir-Tex saves so much furnace heat that would leak out of the walls and ceilings of an uninsulated or poorly insulated house, that a smaller, less expensive heating plant can be installed in a home with Fir-Texed walls and roof.

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**Figure IV**

Typical Advertising Pamphlets Sent Out by Dant and Russell
Lower Application Cost
Greater Effectiveness

FIR-TEX kills 2 birds with 1 stone

FIGURE IT OUT FOR YOURSELF

If you are planning to build, figure the cost of building with Fir-Tex as against building with ordinary wood sheathing:

1. Cost of Fir-Tex Sheathing for all exterior walls and pitched roof areas, plus labor.
2. Cost of ordinary wood sheathing plus building paper, plus waste, plus labor, plus insulation.

Ask your lumber dealer for free estimates and building suggestions

Fir-Tex Asphalt Coated Firkote Sheathing is 25/32" thick and made in 2 types:

2. Horizontal type in one size only—2' x 8' with tongue and groove joint on long edges.
Lower Application Cost
Greater Effectiveness

Fir-Tex
Roof Insulation Board

Fir-Tex
Firkote Sheathing

Figure IV
TYPICAL ADVERTISING PAMPHLETS SENT OUT BY DANT AND RUSSELL
Greater Effectiveness

IS INSULATED AGAINST HEAT, WIND, DUST AND NOISE

Fir-Tex color panels decorate the nursery, and make the room more silent.

Fir-Tex rooms are quiet, too

Besides giving an attractive interior finish, Fir-Tex panels and tile absorb noise.

Fir-Tex the baby’s bedroom. Choose a soft yet colorful tint. Your friend’s chatter and the radio will not keep the baby awake. Baby’s cry will not be the bridge club’s anxiety.

Have a rumpus room in your basement, built of brightly colored panels. The tots can play, your son toot his saxophone, daughter dance with her friends to the radio, your guests frolic—all free from fear of disturbing the neighbors or other members of the household.

Figure IV

TYPICAL ADVERTISING PAMPHLETS SENT OUT BY DANT AND RUSSELL
To seal out the summer's heat rays and to seal in your winter-time furnace heat, to have your home stronger, drier, quieter all year 'round—insulate with Fir-Tex.

Fir-Tex boards build, insulate and decorate. Fir-Tex Firkote Sheathing retards infiltration of wind, dust and moisture . . . seals the home against heat, cold and noise . . . gives greater bracing strength than lumber.

Fir-Tex color panels and tile provide attractive interior finish for walls and ceilings . . . insulate . . . come in five beautiful tints . . . charm and comfort for every room in your house.

In these three bedrooms, Fir-Tex Colorkote Paneling is used on all walls and tile on all ceilings.
The walls and ceiling of this colorful room are of Fir-Tex Colorkote panels and tile. From these lovely tints—Ivrykote, Wheatkote, Blukote, Aprikote and Greenkote—you can choose the combination most suitable to your room and tastes. These colors will give life to your draperies, rugs, and furniture.

You can be a designer . . . express your individuality

Fir-Tex Colorkote wall panels can be applied in many combinations of color and pattern. Also, you can make your room appear longer by applying the panels horizontally; or you can make your ceilings seem higher by putting the panels on perpendicularly.

Fir-Tex Colorkote panels may be sawed, beveled or grooved in any desired design. Give your individuality free reign in planning the arrangement for the Fir-Tex tiles in your ceiling.

Fir-Tex Panels are the cleanest wall covering

The colors of the Fir-Tex Colorkote Panels are baked in. The surface is glazed; it doesn’t attract dust or cobwebs; it can be cleaned with a damp cloth.

Besides being the cleanest wall covering, Fir-Tex gives the room a clean appearance—because the colors are solid, the surface smooth. A Fir-Tex room is modern and beautiful.

A Fir-Texed Home is ready for Airconditioning

Fir-Tex Colorkote panels, which are so modern in appearance, give your home the prime requirement for airconditioning. Only when the home is properly insulated is it possible to aircondition at a cost that is within reason. Heat passes readily through ordinary lath and plaster walls. Fir-Texed walls and ceilings effectively retard this passage of heat.

Remember! Fir-Tex is the Insulating Board made from the tough wood fibers of the giant trees of the great Northern forest.
Following this page is found Figure V. This is another example of advertising data sent out by Dant and Russell. It is used to show the advantages of Fir-Tex Absorptive Form Liner for concrete forms.
One of a series of five dams on the Willamette River in Oregon

The Proved Way to Produce a Smoother, Harder, Denser Concrete

SPILLWAYS ☆ PUMP AND POWER HOUSES ☆ GENERAL CONCRETE CONSTRUCTION

FIR-TEX ABSORPTIVE FORM LINER
FIR-TEX INSULATING BOARD COMPANY

General Offices: Porter Building, Portland, Oregon. Plant: St. Helens, Oregon

SALES REPRESENTATIVES

FIR-TEX OF COLORADO, 412-413 Denham Building, Denver, Colorado
FIR-TEX OF FLORIDA, P. O. Box No. 901, Fort Lauderdale, Florida
FIR-TEX OF GEORGIA, 211 Red Rock Building, Atlanta, Georgia
FIR-TEX OF ILLINOIS, 205 W. Wacker Drive, Chicago, Illinois
FIR-TEX OF IOWA-NEBRASKA, 4242 Chicago Street, Omaha, Nebraska
FIR-TEX OF MARYLAND, 506 South Central Avenue, Baltimore, Maryland
FIR-TEX OF MICHIGAN, 14290 Meyers Road, Detroit, Michigan
FIR-TEX OF MINNESOTA, INC., 2102 Wabash Ave., St. Paul, Minnesota
FIR-TEX OF MISSOURI-KANSAS, 1805 Grand Avenue, Kansas City, Missouri
FIR-TEX OF NEW ENGLAND, Rutherford Avenue, Charlestown, Massachusetts
FIR-TEX OF OHIO, 1500 Keith Building, Cleveland, Ohio
FIR-TEX OF HOOSIER, 812 E. 59th Street, Los Angeles, California
FIR-TEX OF UTAH, 3rd West and 1st North, Salt Lake City, Utah
FIR-TEX OF WASHINGTON, INC., 1121 Smith Tower, Seattle, Washington
FIR-TEX METROPOLITAN, INC., 144 East 26th Street, New York, N. Y.
FIR-TEX WESTERN, 11415 86th Street, Edmonton, Canada
ATLANTIC STATES LUMBER CO., Johnston Building, Charlotte, North Carolina
S. C. HOOPER, Worth Building, Fort Worth, Texas
PENN-NEW YORK FIR-TEX, INC., 110 Pearl Street, Buffalo, New York
PITTSBURGH BUILDING SPECIALTIES COMPANY, 511 Ross Street, Pittsburgh, Pennsylvania
MILAN R. SUTLIFF COMPANY, Ashland, Wisconsin

FIR-TEX OF SOUTH CALIFORNIA, 812 E. 59th Street, Los Angeles, California
FIR-TEX OF UTAH, 3rd West and 1st North, Salt Lake City, Utah
FIR-TEX OF WASHINGTON, INC., 1121 Smith Tower, Seattle, Washington
FIR-TEX METROPOLITAN, INC., 144 East 26th Street, New York, N. Y.
FIR-TEX WESTERN, 11415 86th Street, Edmonton, Canada
ATLANTIC STATES LUMBER CO., Johnston Building, Charlotte, North Carolina
S. C. HOOPER, Worth Building, Fort Worth, Texas
PENN-NEW YORK FIR-TEX, INC., 110 Pearl Street, Buffalo, New York
PITTSBURGH BUILDING SPECIALTIES COMPANY, 511 Ross Street, Pittsburgh, Pennsylvania
MILAN R. SUTLIFF COMPANY, Ashland, Wisconsin

FIR-TEX ABSORPTIVE FORM LINER

Fir-Tex Absorptive Concrete Form Liner is a highly absorptive felted board one-half inch in thickness made by a special process with a chemically treated surface which resists bonding.

Vibration or compaction of concrete causes the formation of countless air and water bubbles which are drawn to the face of the concrete. When ordinary wood forms or non-absorptive form liners are used, these air and water bubbles can find no place to escape and the stripping of the forms discloses the face of the concrete pitted with unsightly voids.

SMOOTHER, STRONGER CONCRETE SURFACES

These same wood forms lined with Fir-Tex Absorptive Form Liner and using the same concrete and the same compaction produce an entirely different result. The action of the Fir-Tex Liner is like that of a vacuum cleaner. It reaches out and takes into itself all excess air and water adjacent to its surface. The removal of bubbles permits the cement to flow into those spaces so that the face of the concrete casts solidly into a smooth attractively textured surface of extreme density and resistance to moisture. This structural change in the concrete extends to a depth of about 1½ in. from the face. Not only has the structure been given architectural beauty, but its weather resistance has been so greatly increased that eminent engineers have referred to its surface as “case hardened.”

TESTS SHOW ADVANTAGES OF FIR-TEX ABSORPTIVE FORM LINER

(Tests made by Bureau of Reclamation, Denver, Colorado.)

Refer to the unretouched photographs which follow. Number 1 illustrates the results of a cast made with a non-absorptive liner. Number 2, the comparison between wood lined and Fir-Tex lined casts. Number 3 shows the damage that may be reasonably expected during a severe winter to a concrete structure where a non-absorptive liner has been used. It also shows the resistance to the ravages of that winter that may be reasonably expected of the structure where Fir-Tex Liner has been used. Number 4 illustrates the extremes to which a Fir-Tex lined cast may be subjected without any damage or disintegration of its volume. This identical usage has reduced the wood form cast by 37% of its weight. None of these tests or photographs were made by the Fir-Tex Insulating Board Company or by any agency employed by them. All were made by engineers of the Bureau of Reclamation and the United States Army and were made to find facts—not to prove that one type of material is better than another.

New as this product is, it has already been employed in projects of varying size in districts from coast to coast.

Some of these are:
Parker Dam, Parker, Arizona-Earp, California.
Tennessee Valley Authority, Gilbertson, Kentucky.
INSTRUCTIONS FOR APPLICATION AND USE OF FIR-TEX ABSORPTIVE FORM LINER

FORMS (Application)

(1) Construct wood forms standard in every way and of standard strength. While Fir-Tex Form Liner does add to the rigidity of the form, it does not add to its strength.

(2) NAILING: Use 4d casing nails spaced 6 in. apart around all four edges. Have two interior rows for each 4-ft. sheet with nails 12 in. apart. Leave nail heads projecting slightly above surface of Fir-Tex. Do not drive home as otherwise the swelling of the board will cause a dimple.

(3) Fir-Tex Form Liner boards shall be brought to snug contact but never forced into place. Where two adjoining boards present an uneven appearance, use sand paper block to sand joint down to an even surface, using extreme care that sanding is done only where absolutely necessary and only at the joint, bearing in mind that this surface impairment will result in bonding at those spots. To reduce this bonding, give each such roughened spot a light brush coat of Form Oil, readily obtainable from any of the major oil companies.

(4) The back surface of each sheet of Fir-Tex Form Liner is plainly marked. (There is no marking on the face). Use extreme care that no piece of Form Liner is placed wrong side out as this will result in a permanent bond. Each member of crew should be shown the difference between the back and the face side of the liner. In case of doubt, throw the piece away rather than run the risk of bonding. Forms should be inspected before pouring and any sheet that is wrong side out should be replaced.

(5) Use usual bracing and wire ties. Care must be exercised in placing spreaders as extreme pressure could cause the end of spreader to bruise Form Liner sufficiently to mar the concrete.

CONCRETE (Use)

(1) No special mix required, but mix must be standard. Dry or undersanded mixes cannot be used successfully with absorptive form lining. Since much of the water is absorbed by the Fir-Tex Liner, a greater slump can be used than with ordinary non-absorbative liners. It is recommended that under no circumstances a slump of less than 4 in. be used.

(2) It is advisable to protect top edge of form by use of a metal hood or cap; cap to be removed at conclusion of each pour. It is suggested that concrete be introduced into the forms through metal hopper with its outlet as low as possible so that the concrete will be deposited as near its final position as possible. This method will prevent surface abrasion and also prevent particles of concrete sticking to the Fir-Tex.

(3) Form Liner must be kept dry until it makes contact with the concrete. Careless placing must be avoided. The concrete should be introduced into the form as near its permanent position as possible so that as the concrete is compacted it flows smoothly and without separation up to the Form Liner. Once the compaction is accomplished, nothing must be done to disturb the concrete.

(4) Segregation of the concrete, which allows the coarser materials to collect next to the lining, must be prevented.

(5) Ample compaction must be provided. Because of the drying action produced on the surface of the concrete by the Form Liner, a slightly excessive amount of vibration is necessary, and this compaction should be accomplished by means of a mechanical vibrator.

(6) Extreme care must be exercised in handling Form Liner and especially in handling vibrator as any damage to the face of the Form Liner will cause blunishes on the face of the concrete.

(7) It is suggested that the shallowest, practical pour levels would be of advantage, and that the interval between successive pours be kept at a minimum.

(8) In so far as is practicable, each unit of face area should be made in one continuous pour—where this is impossible, let the work stop at a floor level or some other horizontal break in the design.

(9) Strip forms within 24 hours or as soon thereafter as possible.

(10) Fir-Tex Liner produces a smoother, harder, denser concrete and makes unnecessary the introduction of any foreign agent into the concrete for the accomplishment of these ends. It is recommended that none of these agents be used in concrete which is to be poured against Fir-Tex Absorptive Form Liner.
One of a series of five dams on the Willamette River in Oregon

The Proved Way to Produce a Smoother, Harder, Denser Concrete

SPILLWAYS ★ PUMP AND POWER HOUSES ★ GENERAL CONCRETE CONSTRUCTION

FIR-TEX ABSORPTIVE FORM LINER
Following this page is Figure VI. This is advertising material in the form of a catalog sent out by Dant and Russell. It is used to demonstrate Interior Finish, Insulating Plaster Base, Sheathing, Acoustical Tile, Roofing, and Refrigeration Insulation.
WHAT IS INSULATION?

Insulation is that modern blessing which:
1. Holds fuel bills within reason when it's freezing cold by reducing the amount of furnace heat which escapes.
2. Makes your home a cool haven when it's hot outside.
3. Keeps the baby's room quiet when you are having guests—and the rest of your house peaceful when he cries; also helps keep the neighbors' celebrations from disturbing your sleep.

WHAT IS FIR-TEX?

Fir-Tex is the insulating building board made from tough wood fibers from the giant trees of the great Northwest . . . where stands the largest forest area of the nation. Fir-Tex shreds this sound, clean wood into fibers, sterilizes those fibers, then "felts" them into strong yet light-weight boards which contain myriads of air cells (the basis of insulation). Each square inch of Fir-Tex contains millions of these insulating air pockets.

You naturally want to get the most for your money when you build or remodel. It will pay you to include Fir-Tex sturdy insulation board among your building materials rather than other types of insulation for these reasons:
1. No better insulation than Fir-Tex Building Board can be bought at any price.
2. Greater strength. The use of Fir-Tex actually adds to the strength of the entire structure.
3. Once in place, always in place. Fir-Tex is an integral part of the home. In case of alteration or repairs when opening is made in ceilings and side-walls, there is no trickle of Fir-Tex because Fir-Tex is a building board.
4. Fir-Tex does not creep or settle. Fir-Tex is nailed solidly to framing members and is a permanent part of the building and remains where put.
5. Fir-Tex provides an unbroken area of uniform insulation continuity. This is particularly true when Fir-Tex is used as a plaster base as the mechanic necessarily must insulate from floor to ceiling and from eave to eave.
6. Fir-Tex takes the place of some other building material and provides both insulation and building material at the cost of insulation alone. This also eliminates one cost of application.
7. Fir-Tex saves fuel bills by reducing loss of furnace heat through walls and roof.
8. A properly Fir-Texed house can be adequately heated with a smaller and less expensive heating plant than an uninsulated or poorly insulated dwelling.
9. Fir-Tex keeps your home at a more comfortable even temperature, summer and winter.
10. Fir-Tex helps keep your home quiet. It not only subdues outside noises, but also retards passage of sounds from one room to another.
11. Fir-Tex products are available in a wide range of standard sizes and thicknesses to meet the requirements of any insulating problem.

Fir-Tex meets the requirements of all Department of Commerce Commercial Standards and United States Federal Specifications.
IN NEW HOME CONSTRUCTION, FIR-TEX PROVIDES COLORFUL INTERIOR FINISH OF CHARMING BEAUTY

In the photograph above, workmen are applying Fir-Tex Paneling to the walls. These panels take the place of lath, plaster, and wallpaper. They go up amazingly fast, and there are your walls, completely finished—saving considerable expense, time and bother.

For the sidewalls of this living room the architect specified Fir-Tex 16" Wheatkote Plank— for the ceiling, tile of Ivrykote so as to increase light reflection.

This picture shows how the walls have been lined with inexpensive lumber to provide a complete nailing base for the Fir-Tex. This type of construction also added strength to the structure at slight additional cost.

IN REMODELING, FIR-TEX IS AN IDEAL BUILDING MATERIAL FOR MODERNIZING AT LOW COST

These two pictures show how little work and expense is involved in changing a dingy, unattractive interior into quarters that are not only cheerful, up to the minute in appearance, but also insulated against heat, cold and disturbing noises.

It's easier and more profitable to hold present tenants than to secure new ones. When an office building begins to look antiquated, brighten up by modernizing with Fir-Tex interior finish.
FIR-TEX TURNS WASTE ATTIC SPACE INTO AN EXTRA ROOM

This was just another attic, until its owners, with a growing family, had the bright idea of making it into an additional bedroom. A friend (an architect) suggested Fir-Tex as the most satisfactory way to finish and insulate it at the same time. They chose alternate panels of Fir-Tex Aprikote and Greenkote for the walls and Ivrykote for the ceiling—standard Fir-Tex shades. Their carpenter, using a Bevil Devil insulating board cutter, worked up these panels from Fir-Tex Colorkote Building Board. Just a week after they first decided to make over this attic, it was all completed, even to the new window! Now the attic belongs to the rest of the house, instead of being the ugly duckling in an otherwise lovely home. And the fact that it is super insulated with Fir-Tex makes this attic bedroom—and the downstairs rooms, too—cooler in summer, warmer in winter.

It's time to do something about that attic of yours—and Fir-Tex is the fairy godmother that transforms it into an attractive, liveable place. At very little cost, you can finish your attic with bright, cheerful walls and ceiling of Fir-Tex—an ideal background for playroom, extra bedroom, study or den. You'll have a room that is not only lovely to look at, but also comfortable the year 'round—cooler in summer, warmer in winter and quieter all year 'round. You'll have beautiful interior finish, plus insulation, at the cost of insulation alone.

There's a practical reason, too, for Fir-Texing your attic, and that is fuel savings. You get more value for your Fir-Tex dollar in your attic than in any other place in your home. As you know, warm air rises; heat escapes rapidly through an uninsulated roof and attic walls. Fir-Tex soon pays for itself in fuel savings by keeping furnace heat in. (The cost of heating a house is small, but the cost of heating all outdoors is incalculable).

LET FIR-TEX TURN A DINGY BASEMENT INTO AN ATTRACTIVE RUMPUS ROOM!

You're missing something by not having a basement "playroom". Ask your lumber dealer for ideas and let him show you how little it costs.

The expensive look of this luxurious room is deceiving. It actually costs far less than most people would estimate. The beautiful Fir-Tex Finish Plank on walls and 12" x 24" Tile on ceiling, proved to be a double economy, for it both finished and insulated the room, yet cost no more than plain insulation board! There was no need to buy lath, plaster, wall paper or calcimine, because Fir-Tex is complete interior finish in itself. It comes already pre-sized and color-coated, in five attractive pastel shades: Ivrykote, Wheatkote, Blukote, Aprikote and Greenkote.
FIR-TEX IS TWINS! IT BEAUTIFIES AND INSULATES AT THE COST OF INSULATION ALONE

As insulation, Fir-Tex is excelled by none, equalled by few. But Fir-Tex does more than insulate. Fir-Tex is Twins! It is an actual building board which does an important building job plus insulation, at the cost of insulation alone.

There are various kinds of Fir-Tex boards, for various purposes:
- Fir-Tex Color Paneling provides attractive interior finish, and also insulates.
- Fir-Tex Insulating Lath takes the place of ordinary lath (or any other plaster base), and also insulates.
- Fir-Tex Firkote Sheathing replaces ordinary wood sheathing and building paper, and also insulates.

Each type of Fir-Tex board cuts your building costs by doing two jobs at the cost of one. So you see it pays, in first cost as well as substantial fuel savings, to insulate with Fir-Tex, the double-duty building board.

Many colorful effects are possible with Fir-Tex Colorkote interior finish.

LEARN HOW ECONOMICAL IT IS TO REMODEL WITH FIR-TEX

There's nothing like a rumpus room to attract fun and friends. Such a place also has a knack of keeping young people at home. Whether you are building a new house or making over an old one, a recreation room is a wise investment. One way to get a stunning, colorful room at moderate cost is to use Fir-Tex, the double-duty building board. The room above, with walls and ceiling of sky blue Fir-Tex Paneling, is an example. Another important advantage of using Fir-Tex is that it helps keep noise from traveling through the house. Let Johnny have his saxophone and practice in the basement. Let the children romp and shout—Fir-Tex will absorb most of the noise. And when you and your guests take over the game room, you can be as hilarious as you please without worrying about waking the baby. You can all have more fun with a Fir-Texed rumpus room.
Here is a completely Fir-Texed home. Its exterior walls and entire roof areas have been sealed with Fir-Tex Sheathing. All its other rooms are finished in Fir-Tex Colorkote Plank and Tile except bathrooms and kitchen in which Fir-Tex Tempered Hardboard was used.

What liveable, charming rooms these are! No wonder architects, builders and contractors say "Fir-Tex is Twins." Here Fir-Tex builds and insulates at the same time—does these two jobs at the cost of insulation alone and provides an interior finish that many prefer to calcimined plaster or wallpaper. All these rooms will be comfortable, too—they are insulated against heat, cold, wind, dust and noise. Fuel bills are remarkably low, and a smaller heating plant was required for an insulated house.

IN THESE THREE BEDROOMS, FIR-TEX COLORKOTE PANELING IS USED ON ALL WALLS AND FIR-TEX TILE ON ALL CEILINGS
MANY COLORFUL COMBINATIONS CAN BE HAD WITH FIR-TEX

Colorful rooms, like colorful people, are the ones that get all the attention—and compliments. If you want a home that your guests will admire, make it gay and interesting with colorful walls of Fir-Tex Paneling.

Home-owners everywhere are enthusiastically ordering it. And the marvelous thing about this color line is that it costs no more than ordinary unfinished insulation board! It is easily cleaned, durable and thoroughly practical.

If Fir-Tex had only one great virtue—beauty—you still would want it in your home. But in addition it provides super insulation, to protect you from summer heat, winter cold, and nerve-racking noise. No wonder home-owners everywhere write that “Fir-Tex Color Paneling has changed our home into a bit of Paradise.”

The walls of this charming slumber room are Fir-Tex Aprikote Finish Plank 16 inches in width and bevelled on each edge to form a plain V-joint which shows the natural color of the Fir-Tex in pleasing contrast to the Colorkote surface.

Each of the Fir-Tex Colorkote Interior Finish boards is available in a choice of five soft pastel shades: Ivrykote, Wheatkote, Blukote, Aprikote, Greenkote. Ceiling tile is also available in Whitekote—a complete list of Fir-Tex products is shown on pages 26 and 27. The wide assortment of sizes, patterns and colors make possible an endless variety of combinations so that each home owner may express his own individuality in the decoration of each of his rooms.
FIR-TEX DOES TWO JOBS AT ONE COST—IT

USE FIR-TEX INSULATING LATH AS A PLASTER BASE

Fir-Tex holds plaster like glue. It assures smooth, attractive walls and ceilings for years to come, free from dirt-revealing plaster marks because dust-laden heat does not pass through. Plaster cracking is reduced to a minimum.

Modern construction requires an exterior sheathing material for sidewalls and roof that not only retards the infiltration of wind, dust and moisture, but also seals the home against heat, cold and noise. Fir-Tex Firkote Sheathing meets all these requirements and also provides walls of greater bracing strength than lumber.

Moreover, Firkote Sheathing saves money by replacing ordinary wood sheathing and building paper, and reducing material and labor costs. It insulates so well that fuel costs are cut drastically. Houses built with Firkote have less depreciation, higher resale value.

The cost of Firkote Sheathing is usually no greater and often less than that of lumber and building paper. And there is only one application cost instead of two. The insulating feature and greater bracing strength of Firkote are extra values that cost you nothing. There is also a saving in time, because Fir-Tex Firkote comes in large sheets which are quickly nailed up.

There’s no waste with Firkote, as compared with lumber waste of 25 per cent (if applied diagonally). It is easy to saw, but little sawing is needed because, except for window and door openings, it will fit as furnished. There is no loss in shiplapping; when you buy 1000 feet of Firkote you get 1000 feet of coverage.
Fir-Tex Acoustical Tile is the ideal material for the architect to use when he wishes to beautify and also control sound within a room. It is scientifically engineered to absorb reverberation and take the shock or impact out of noise, and do these things without surface defacement or impairment of its thermal insulating properties.

Fir-Tex Acoustical Tile is available in three thicknesses, 3/8", 3/4", 1"; three densities, low, medium, standard; four colors, white, ivory, cream, buff. This permits an unusual range of choices to meet the demands of any acoustical problem. The elimination of extra manufacturing expense enables Fir-Tex Acoustical Tile to be sold at a lower cost per unit of sound absorbed than many comparable materials.

The acoustics of any church, theatre, auditorium, hospital, school, studio, store or office can be greatly improved by finishing walls and ceiling with Fir-Tex Acoustical Tile.
More and more, business men are impressed with the wisdom of using Fir-Tex insulation for recreational quarters of all kinds, as well as in their homes. The fact that Fir-Tex does two jobs at the cost of one appeals to their business instincts.

The colorful, modern lobby shown above at left is of an unusually attractive suburban theatre. Patrons are enthusiastic about the colorful restful surroundings and appreciate the fact that the sound screen is plainly heard in every part of the house. By using inexpensive Fir-Tex the architect was able to provide this beautiful interior and keep within his limited budget.

In the bowling alley shown above, right, Fir-Tex spray painted Panel Boards provide a pleasing interior and absorb just the right amount of excess reverberation.

When the owner selects the materials for finishing the interior of his recreational hall, be it a moving picture house, skating rink, bowling alley or badminton court, he is confronted with two serious problems. First, he must stay rigidly within his budget. Second, he must accomplish three results: beauty, quiet, comfort. That is why Fir-Tex spray painted Finish Boards have been so enthusiastically received as a complete solution of their problems.
**The Fir-Tex Type of Roof Insulation is a “Must” on Most Commercial Buildings**

Fir-Tex Roof Insulation Board is a low-density board especially manufactured for use on flat decked roofs of wood, steel, concrete, structural gypnum or unit tile. Because of its exceptional insulating properties, it is widely used on large industrial plants, schools, commercial, municipal and federal buildings.

Fir-Tex Roof Insulation, like all Fir-Tex products, is playing an important part in the national defense program. Millions of feet of this tough, enduring, protective covering are being used by such large suppliers of war materials as: Boeing Aircraft Company, Packard Motor Car Company, Aluminum Corporation of America, Bendix, and air fields throughout the nation such as the Beth Page airfield on Long Island.

**4 Types Available**

Square edged, homogeneous board up to 1 3/4" without lamination.

Offset edges, homogeneous board up to 1 3/4" without lamination.

Square edged, 2" to 4" laminated.

Offset edges, 2" to 4" laminated.

Insulation has to be right when used for commercial refrigeration. Here, insulation is more than a matter of comfort and of lowered fuel bills, important though these are. In commercial refrigeration and cold storage, a definite degree of cold must be maintained, or valuable stocks of perishables will be lost.

The dependability of Fir-Tex Refrigeration Insulation Blocks in maintaining minimum temperature at lowest cost has led to its selection by a significant number of manufacturers of all kinds of commercial and domestic refrigerators. Makers of railroad and truck refrigeration cars specify Fir-Tex again and again. It possesses insulation qualities of super efficiency, is resistant to the growth of fungus and mold, and has very low water absorption.

Fir-Tex is a most effective and economical insulation material available for cold storage warehouses, breweries, wineries, meat and creamery coolers and air conditioning plants.

Fir-Tex Refrigeration Insulation is used extensively in Northern Pacific, Great Northern, Chicago, Burlington and Quincy, Union Pacific System and Southern Pacific refrigerator cars.

The beautiful Benson Hotel of Portland, Oregon, is nationally famous for the excellence of its cuisine. The Benson replaced cork in its refrigeration rooms with Fir-Tex Refrigeration Insulation to insure the freshness and delicious flavor of its high quality perishable foods.
Here are excerpts from a few of the letters received in praise of Fir-Tex. The statements printed here are typical of the attitude of home owners, business men, contractors and architects who have used this superior building-insulation board.

"We have used a large quantity of both Fir-Tex Lath and Panel and have found it necessary to turn off many of the radiators in the gym room in order to keep the temperature down to the proper level. Formerly they were all on. We feel well satisfied with the job." J. L. Breckenridge, City Superintendent, Head River Public Schools, Head River, S. Dak.

"We have used a large quantity of both Fir-Tex Lath and Panel and have found it necessary to turn off many of the radiators in the gym room in order to keep the temperature down to the proper level. Formerly they were all on. We feel well satisfied with the job." J. L. Breckenridge, City Superintendent, Head River Public Schools, Head River, S. Dak.

"I have been in the building business for many years and have used many thousands of feet of insulation lath and board. I believe Fir-Tex has more insulation value than any of the other boards I have used. The cost of the lath I just finished on Donada Place, I used about 5,000 feet of Fir-Tex Lath. I am sold on Fir-Tex." Ivar Johnson, Contractor, Bridgeport, Connecticut.

"We have used Fir-Tex in the mill. We purchased a sizeable order of Fir-Tex for the plaster on the building. When we used it in the auditorium, and in the offices, we found it necessary to provide sound-proof insulation between the rooms. It has also been found to be a good insulating material for the walls. Donald J. Stewart, Chief Engineer, Radio Co., Stratford, Connecticut.

"It has been my experience with Fir-Tex is that it has been very favorable. When you receive your package of Fir-Tex for the insulation board, ship only Fir-Tex." Elmer H. Holland, Contractor, Stratford, Connecticut.

"We have completed our job within the budget. The decorative work on the new building, which was previously done at a cost of $10,000, was done by us for $4,500. We found it necessary to turn off many of the radiators in the gym room in order to keep the temperature down to the proper level. Formerly they were all on. We feel well satisfied with the job." J. L. Breckenridge, City Superintendent, Head River Public Schools, Head River, S. Dak.

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"We have had no difficulty with Fir-Tex except for the first lot we received. We found it necessary to provide sound-proof insulation between the rooms. We have found it necessary to turn off many of the radiators in the gym room in order to keep the temperature down to the proper level. Formerly they were all on. We feel well satisfied with the job." J. L. Breckenridge, City Superintendent, Head River Public Schools, Head River, S. Dak.

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FROM NORTHWEST FORESTS... through the Fir-Tex plant to your home

It took centuries to grow these trees. They started growing before any white man crossed the Mississippi! From trees like these comes the sound wood of which Fir-Tex is made.

Fir-Tex uses the healthy by-products of lumbering—clean, inside wood which, for ordinary building purposes, is the wrong size or shape, but which is ideal for making insulation boards, because it is easily separated into strong, whole fibers. There is always an abundant supply of this wood (which would otherwise be used as fuel or just wasted). That's why Fir-Tex costs so little, considering its excellent insulating qualities.

The trek through the plant begins

The wood is floated down the Columbia River to the half-mile-long Fir-Tex plant. Here it goes first to the chipper, where sharp, revolving knives cut it into small chips. These pass over an oscillating screen which sorts out off-size pieces. Natural length fibers, which can be felted most effectively, are produced by this method. Every fiber is sterilized, to prevent fungus growth or dry rot.

After the fibers are loosened, they are dropped onto a conveyor which carries them to the shredders and refiners. From the time the wood enters the plant until it comes out a finished board, it goes in a straight line, without lost motion.

Heat and pressure loosen fibers

The chips are next dropped from an overhead bin into pressure cookers of fantastic size, which look like playthings of giants from another world. Their purpose is to loosen the fibers of the wood. Heat and pressure—supplied by live steam—do the trick, without damaging the fibers. Tough, comes out a finished board, it goes in a straight line, without lost motion.

In the shredders, the cooked, sterilized chips are pulled and rubbed and rolled until the previously loosened fibers come apart. The result: millions of uniform fibers which are all wood—strong, natural wood. No chemicals have been used; consequently the fibers do not lose their strength and firmness.

The loose fibers are now sent to the refiners to be mixed with water. The material is a thick "soup" of wood and water when it enters the board-making machine. The "soup" floats into it on a slowly moving wire screen. Most of the water immediately runs through the screen, and the rest is removed when the screen passes over suction boxes and under rollers.

The actual forming of the board begins when the fibers, now a thick mush, pass between two moving "felt", which move at the same speed as the wire screen. These felts are endless belts the width of the machine. The product that leaves them is not "mush" but fibers felted and pressed into a solid board.

Fir-Tex visits the beauty shop

The board then gets a coating of color which is baked right into it and becomes a permanent part of the board. All Fir-Tex Colorkote boards receive this attractive, protective coating.

Next the board goes to one of the automatically controlled ovens or dry kilns, where it is slowly dried. The temperature of the air in the oven, and the length of time the board remains there, are as carefully watched as a patient's temperature in a hospital.

Fir-Tex maintains its own laboratory where skilled chemists make regular tests of all Fir-Tex products. Each product is tested for uniformity, density, tensile strength, transverse strength and resistance to moisture. In this very laboratory, too, was developed the revolutionary process of color coating which enables Fir-Tex to give its paneling board outstanding beauty.

Because of this Colorkote which is exclusive with Fir-Tex, you can now get paneling board, in exquisite pastel shades, which costs no more than ordinary unfinished insulation board.

From forest to fiber to finished board

The finished Fir-Tex is now ready for shipment to your building supply dealer. Its strength and durability are derived from the strength and durability of the great Northwest trees. And its beauty, the heritage of the forest, is now ready to enhance the beauty of your home.
# THERE IS A FIR-TEX INSULATING BOARD FOR EVERY PURPOSE

Fir-Tex is twins...it insulates as it builds

## Table of Specifications

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SIZES</th>
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<tr>
<td><strong>Ivrykote and Colorkote Building Board</strong></td>
<td>Square edged Insulating Board with glazed, washable surface. Available in five colors: Ivrykote, Wheatkote, Blukote, Aprlkote, Greenkote. Standard thicknesses: Ivrykote 3/4&quot;, 1&quot;, Colorkote, 3/4&quot; only.</td>
<td></td>
<td>4'x6' 4'x8' 4'x9' 4'x10' 4'x12'</td>
</tr>
<tr>
<td><strong>Ivrykote and Colorkote Finish Plank</strong></td>
<td>Long edges beveled and beaded; tongue and groove joint. Available in same five colors as Ivrykote and Colorkote Building Board. Standard thicknesses: Ivrykote, 3/4&quot;, 5/8&quot;, 1&quot;. Colorkote, 5/8&quot; only.</td>
<td></td>
<td>4'x6' 4'x8' 4'x9' 4'x10' 4'x12'</td>
</tr>
<tr>
<td><strong>Ivrykote and Colorkote Tile</strong></td>
<td>Beveled on all four sides; tongue and groove joint. Available in following colors: Ivrykote, Whitekote, Wheatkote, Blukote, Aprlkote, Greenkote. Standard thicknesses: Ivrykote, 5/8&quot;, 3/4&quot;, 1&quot;. Whitekote and Colorkote, 5/8&quot; only. Whitekote available in Tile sizes only.</td>
<td></td>
<td>SMALL Tile Sizes: 12&quot;x12&quot; 16&quot;x16&quot; 18&quot;x16&quot; 24&quot;x16&quot; LARGE Tile Sizes: 12&quot;x24&quot; 18&quot;x24&quot; 12&quot;x36&quot; 12&quot;x48&quot;</td>
</tr>
<tr>
<td><strong>Fir-Tex Hardboard Products</strong></td>
<td>Dense rigid sheets having no insulation value, but especially designed to withstand hard use and exposure to moisture, all items available in standard rich, dark brown. Tempered items also available in black.</td>
<td></td>
<td>Standard Sizes and Thicknesses</td>
</tr>
<tr>
<td><strong>Interior Finish Plus Sound Control and Acoustical Correction</strong></td>
<td>Selected low density Fir-Tex Tile, with maximum sound absorptive qualities. Sprayed with special acoustical paint so that their acoustical properties will not be impaired. Standard colors: White, Ivory, Cream and Buff. Used for the control of sound in theaters, churches, auditoriums, broadcasting studios, stores and offices. Standard thicknesses: 5/8&quot; and 1&quot;.</td>
<td></td>
<td>12&quot;x12&quot; 12&quot;x24&quot; 16&quot;x16&quot;</td>
</tr>
<tr>
<td><strong>Insulation under Floors, between Studding and over Joists</strong></td>
<td>Insulating Board</td>
<td></td>
<td>Standard thicknesses, 3/4&quot; and 1&quot;. Same as Colorkote Building Board</td>
</tr>
<tr>
<td><strong>Refrigeration and Cold Storage Insulation</strong></td>
<td>Refrigeration Insulation Blocks</td>
<td>Low density; high insulation value. Made in one homogeneous board up to 1 1/2&quot; without lamination. Standard thicknesses, 1&quot;, 1 1/2&quot;, 2&quot;, 3&quot;, 4&quot; and greater if desired.</td>
<td>12&quot;x16&quot; 18&quot;x16&quot; 24&quot;x16&quot;</td>
</tr>
<tr>
<td><strong>Insulation of Flat Decked Roofs under Built-up Roofing</strong></td>
<td>Roof Insulation Board</td>
<td>Low density; maximum insulation properties. Thicknesses, 3/4&quot; to 2&quot; or more. Size: Square edge, 24&quot; x 48&quot;; offset edge, 22&quot; x 47&quot;. Standard thickness, 3/4&quot;, 1&quot;, 1 1/2&quot;, 2&quot; and thicker upon special order.</td>
<td>Square Edge: 24&quot; x 48&quot; Offset Edge: 22&quot;x47&quot;</td>
</tr>
<tr>
<td><strong>Insulation of Pitched Roofs</strong></td>
<td>Firkote Sheathing Building Board</td>
<td>See above.</td>
<td>See above.</td>
</tr>
<tr>
<td><strong>Exterior Wall Sheathing and Exterior Wall Finish</strong></td>
<td>Firkote Sheathing</td>
<td>Large sheet type: Squared edged, both sides, and all edges waterproofed with hot asphalt. Standard thickness, 25/32&quot;.</td>
<td>4'x6' 4'x8' 4'x10' 4'x12'</td>
</tr>
<tr>
<td><strong>Plaster Base</strong></td>
<td>Insulating Lath</td>
<td>Long edges slotted, ends square edged. Made especially to receive and hold plaster. Fir-Tex Insulating Lath is nailed directly to the studs and joists and the plaster applied directly to it where it sticks like glue. Standard thicknesses, 3/4&quot;, 5/8&quot;, 1&quot;.</td>
<td>18&quot;x48&quot;</td>
</tr>
<tr>
<td><strong>Paneling for Interior Finish Walls and Ceiling</strong></td>
<td>Building Board</td>
<td>Square edged Insulating Board. Standard thicknesses, 3/4&quot;, 1&quot;.</td>
<td>Same as Colorkote Building Board</td>
</tr>
</tbody>
</table>
| **Interior Finish Plus Sound Control and Acoustical Correction** | Acoustical Tile | See above. | See above.
A Fir-Texed rumpus room at the bottom of the cellar steps is the most popular room in the modern home. These walls are gaily designed with Wheatkote and Greenkote panels.

SALES REPRESENTATIVES

FIR-TEX OF COLORADO
412-612 Denver Building
Denver, Colorado

FIR-TEX OF FLORIDA
P.O. Box No. 96
Fort Lauderdale, Florida

FIR-TEX OF GEORGIA
111 Red Rose Building
Atlanta, Georgia

FIR-TEX OF ILLINOIS
205 N. Water St.
Chicago, Illinois

FIR-TEX OF IOWA-NEBRASKA
4824 Chicago St.
Omaha, Nebraska

FIR-TEX OF MARYLAND
96 South Central Avenue
Baltimore, Maryland

FIR-TEX OF MICHIGAN
12300 Mound Rd.
Detroit, Michigan

FIR-TEX OF MINNESOTA INC.
130 W. 7th Street
St. Paul, Minnesota

FIR-TEX OF MISSOURI
211 E. 7th St.
St. Louis, Missouri

FIR-TEX OF MISSOURI-KANSAS
1805 Grand Ave.
Kansas City, Missouri

FIR-TEX OF NEW ENGLAND
Rutherford Avenue
Charlestown, Mass.

FIR-TEX OF NORTHERN CALIFORNIA
123 Kansas Street
San Francisco, Calif.

FIR-TEX OF OHIO
Keith Building
Cleveland, Ohio

FIR-TEX OF SOUTHERN CALIFORNIA
812 E. 59th Street
Los Angeles, California

FIR-TEX OF UTAH
3rd West and 1st North
Salt Lake City, Utah

FIR-TEX OF WASHINGTON, INC.
1101 6th Ave.
Seattle, Washington

FIR-TEX WESTERN
5555 Third Ave.
Edmonton, Canada

ATLANTIC STATES LUMBER CO.
Johnston Building
Charleston, North Carolina

S. C. HOOPER
Warf Building
Fort Worth, Texas

PENNSYLVANIA FIR-TEX, INC.
156 Pearl St.
Buffalo, N. Y.

PITTSBURGH BUILDING SPECIALTIES CO.
211 Rose St.
Pittsburgh, Pa.

MILAN E. ZETTLER COMPANY
Ashton, Wisconsin

FIR-TEX INSULATING BOARD COMPANY

GENERAL OFFICES: PORTER BUILDING, PORTLAND, OREGON
PLANT: ST. HELENS, OREGON

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Displays

In addition to magazine advertising, Fir-Tex advertises through displays at such affairs as Stock Shows, Conventions, Window Displays, and displays in buildings. These displays are one of two types. The first is in the form of pictures placed on billboards or in picture racks at the above mentioned places. Also at fairs and such things as that, display booths are set up. These are usually Fir-Tex houses with samples and advertising folders available.

Another form of display is through Display Boxes in all dealer's offices. These boxes include pieces of Fir-Tex Colorkote Board, Fir-Tex Plaster Base Lath, and asphalt-coated Firkote Sheathing. Also they include descriptions of the catalog and pamphlet type. Display boxes are valuable because they give the customer a direct view of the board itself and from this they can determine exactly how the board looks, feels, and in other words a better understanding of what the board actually is.

Motion Pictures

Last year it was decided by the Fir-Tex Department to carry their advertising plan one step farther than had been before attempted. This plan called for the production of a motion picture film dealing with Fir-Tex. This is not only for advertisement but also for public relations work which is a highly desirable method of
of furthering the companies interests.

This film starts with the plant itself. It shows the various steps in manufacturing from the chips on through to the final storage of the completed product in the warehouses. Then it goes into the types of Fir-Tex, applying the board, and views of how the completed installation looks. Also it demonstrates how "it replaces structural material and insulates at the cost of insulation alone."

This film is available for public showing at any gathering that is of such a nature as would probably be beneficial to Fir-Tex. It is not only very interesting but is also very educational.
CONCLUSION

In closing I would like to say that I have attempted to give to the reader a clearer idea of Fir-Tex, its various uses, the plant that stands behind it, and the merchandising system used in regards to selling of the product. I have obtained a great deal of personal satisfaction in being given the opportunity to write upon this subject, and I hope that any who may chance to read it will find it interesting and at the same time obtain some degree of personal enlightenment from it.
1. Material obtained from an interview with Mr. Glenn W. Cheney.


3. Fir-Tex Sales Manual

4. Visit to Fir-Tex Plant at St. Helens

5. Experience in the bookkeeping department of Dant and Russell, Inc.