ASBESTOS FIBER SUPPLY AND DEMAND 1975-1980 AND A J-M PRICING POLICY

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ASBESTOS FIBER

A) SUPPLY – DEMAND 1975 – 1980

We have developed the supply-demand relationship for Asbestos Fiber over the period 1975 to 1980 based on our existing knowledge of production capacity in 1975, together with known or contemplated expansion programs plus possible and probable new mines entering the production ranks in the period under consideration. The resultant supply figure is then compared with the forecast demand based on an estimated average growth rate in demand of 4.5% annually, worldwide.

CHART 1

The tonages shown in the left hand column opposite each country represent our best estimate of the productive capacity in 1975.

A) Canada – The productive capacity shown at 2,026,000 tons overlooks the abnormal conditions which pertained in 1975.

B) U.S.S.R. – The number shown, namely 1,500,000 tons is from the U.S. Bureau of Mines, and is in disagreement with our own estimate of 2,200,000 tons. However, the significant number is 550,000 tons shown as, "Available for Export."

C) South Africa – The total of 506, 400 tons includes Rhodesia, Swaziland & South Africa and , also, it includes the total tonnage of Chrysotile, Amosite and Crocidolite (Blue).

The tonnages shown in the right hand column represent our best estimates of production capacity by 1980 based on our present knowledge of projected mine closures, new mines entering production and expansion programs for existing mines, in each country.

In summary, total world supply of Asbestos is forecast to increase by approx. 860,000 tons over the period 1975-1980. (The increased supply from the U.S.S.R. is based on the increase in exports.)

CHART 2

Shortages of certain grades of Asbestos appeared in 1973 and continued into 1974. Since 1975 was an abnormal year, we have chosen 1974 as a year in which supply & demand were in balance, considering all grades and all uses.

By applying a growth rate of 4.5% the demand by 1980 is 6 million tons and the supply from Chart 1 is 5.5 million tons, or

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an estimate net shortage of 536,000 tons. The major portion of this shortage is in the longer fiber grades and a further refinement of this number by fiber group is under preparation.

B) PRICING OF ASBESTOS FIBER

The brief review of the worldwide supply-demand picture would be incomplete without a similar review of prices of Asbestos fiber.

We have set forth below the trends of prices over the past years, the effect of price increases on Asbestos on its competitive position with other basic materials and our thinking with respect to future price trends.

CHART 3

Shows the A.F.D. selling price index for Asbestos over the period 1967 to 1975, incl. in comparison to the C.P. indices of P.V.C. resin and Portland cement.

CHART 4

Shows the A.F.D. selling price index for Asbestos over the same period in comparison to the Wholesale Price Index (Historic & Forecasted) for P.V.C. resin and Portland cement.

CHART 5

Shows the A.F.D. selling price index for Asbestos in comparison to the W.P.I. for Copper and Iron & Steel.

CHART 6

Shows the A.F.D. selling price for Asbestos in comparison to the W.P.I. for Aluminum sheet, Galvanized Steel Sheet and J.M. Flexboard.

CHART 7

Shows the A.F.D. selling price index for Asbestos in comparison to selected industrial raw materials.

CHART 8

Shows the A.F.D. selling price index for Asbestos in comparison to selected finished products.

You will note from these charts that the S.P.I. of Asbestos was relatively flat over the period 1967 through 1973 and that those

basic materials which are most competitive with Asbestos have either kept pace in price index or risen faster than Asbestos.

However, it is most important to look at price increases on Asbestos in more detail, as, for example, through the eyes of the Asbestos Cement Industry, since it is this industry that consumes approx. 50% of the Quebec Production of Asbestos and nearly 70% of the total Canadian Production and on which the future of the Asbestos Mining Industry depends if the mining companies are to continue to be profitable in the future.

It is pertinent to examine the prices of 4T and 6D, two of the standard grades of fiber used in the production of Asbestos cement pipes and sheets to see what happened to them from 1963 to 1973 and from 1973 to the present.

CHART 9

In 1963, the list price of our 4T was $190.00 per ton and in January 1973 it was $227 per ton, an increase of 19.5% over a 10 year period. In the period from January 1973 to January 1976 the 4T price was increased from $227/ton to $492/ton, or 116% in 3 years.

A similar picture was true for 6D. Over the period from January 1963 to January 1973, the price went from $95/ton to $120/ton, or 26%. In January, 1976, the price was $236/ton, or an increase of 97% over a 3 year period.

It should be clearly understood that whereas the increases during the period 1963 to 1973 were insufficient, and are partly responsible for the present shortage of Asbestos, the increases over the last three years have permitted us to catch up on the ground that was lost while the market favored the buyer. In fact, the total increase over the 13 year period totals 159% for 4T and 148% for 6D, or an average of 12% per year.

Despite these impressive price increases, a recent study made by A.F.D. personnel concludes that the present prices should be increased now by a minimum of 15% to provide an R.O.I. of 20% on an investment in a new Asbestos mine.

The obvious questions are: Do we need to search for new Asbestos deposits, and if so, are we likely to kill the industry, as a result of the past increases and/or from future increases? What should our pricing policy be?

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Let us look at the facts again, and refer to the supply-demand situation. It is known that by the end of 1977 the Clinton Creek Mine of Cassiar and the Normandy Mine of Asbestos Corp. will close down. On the other hand, we know of a dozen or more new A/C machines being erected around the world, primarily in the developing countries of Asia, Africa, Latin America and Eastern Europe.

We know also that despite the recent very major price increases, the industry is unable to meet the demand for Asbestos even during a period of general worldwide economic recession. Not only have our prices increased dramatically, but freight rates have nearly doubled over the past 3 years. Yet the industry is far from being dead.

Millions of dollars have been invested around the world in various Asbestos using industries and no major user of Asbestos has threatened to close down his operation because of price increases, The growth may be slowed down, but there is really insufficient Asbestos available to-day to keep the present facilities operating at full capacity.

Our analysis of the Asbestos industry brings us to the following conclusions. It is not the judicious increases in the price of Asbestos fiber, but rather it is the eventual drying up of sources of supply and the unavailability of Asbestos that will force the closing of manufacturing operations and the development of competitive materials.

The exploration for and discovery of new Asbestos deposits outside the U.S. & Canada, closer to the Major A/C markets, would obviously relieve the supply situation. Assuming that a deposit containing Group 4 can be found, we can make it viable and achieve an R.O.I. of 20% through price increases and by incorporating part of the freight savings from Canada into the price of the Asbestos. We know, for example, that fiber produced in Australia and in Brazil is more expensive than our Canadian fiber because the former prices are aligned to the delivered prices of Canadian grades.

As a final policy recommendation, we believe that our customers, who have been exposed to frequent and heavy price increases over the past 3 years, need to consolidate their competitive position. Generally, they accept the facts of life and they recognize that if they are to remain in business they must provide the producers with the necessary profit incentive not only to maintain existing operations, but to expand them and to bring to production new deposits. From the marketing viewpoint, we share their concern and propose that we consider, within the limits of our ability, the adoption of a pricing policy based on a single increase annually. The amount of such an increase would naturally be dictated by cost factors, inflation rates and etc., but if our estimate of future demand is correct, and we have no reason to doubt it, then we would suggest that increases of 10 to 20 percent per year can be born by the industry without killing it.

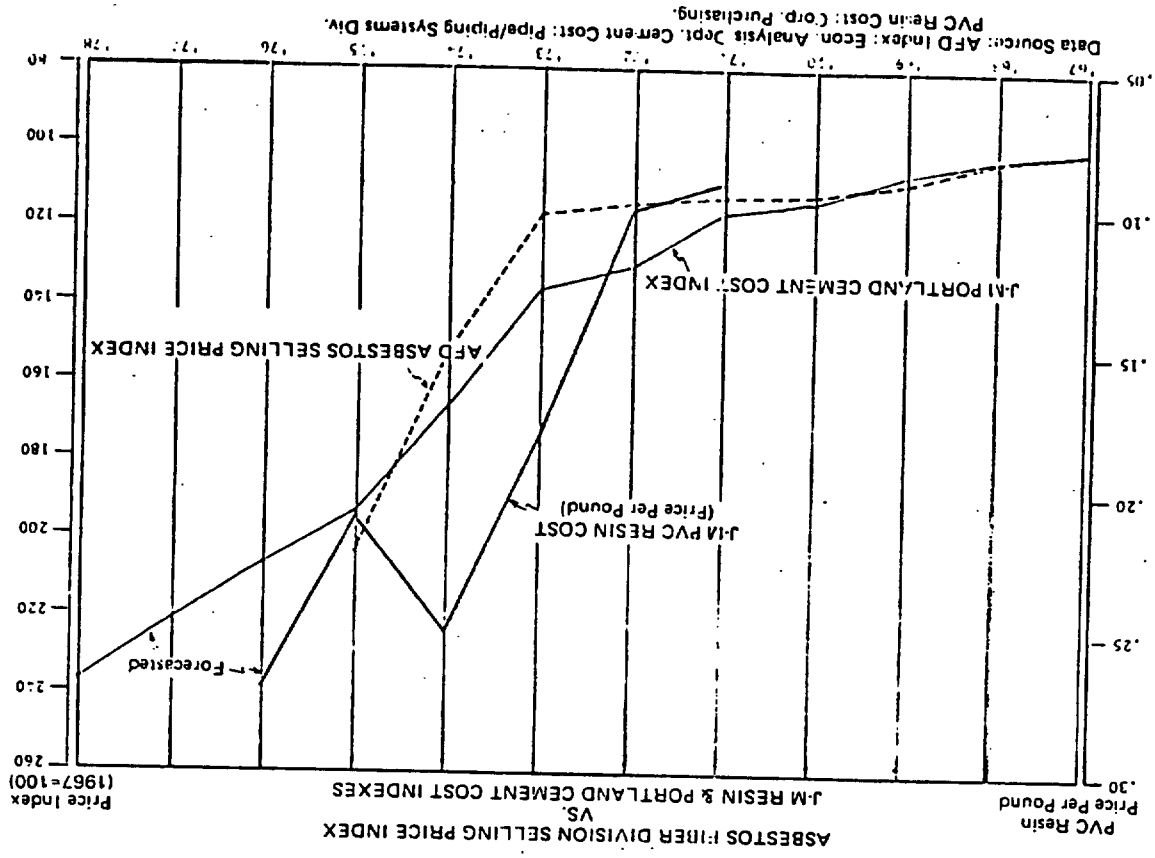
CHART 1

WORLD ASBESTOS CAPACITY 1975–80
(ALL TYPES & GRADES)

PRODUCING COUNTRY	SHORT TONS (THOUSANDS) 1975	1980
CANADA	2,026.0	2,191.0
U.S.S.R.	1,500.0	1,800.0
AVAILABLE FOR EXPORT	550.0	850.0
UNITED STATES	111.9	146.9
SOUTH AMERICA	65.0	140.0
MEXICO	–	50.0
AFRICA	506.4	606.4
EUROPE	193.0	293.0
CHINA	145.0	145.0
AUSTRALIA	40.0	75.7
OTHER COUNTRIES	36.0	36.0
WORLD TOTAL	4,623.3	5,484.0

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CHART 3



FORECASTED WORLD ASBESTOS SUPPLY & DEMAND BY 1980
(ALL TYPES & GRADES)

	SHORT TONS (THOUSANDS)	
	1974	1980
WORLD DEMAND	4,623.3	6,020.7
WORLD SUPPLY	4,623.3	5,484.0
SHORTAGE	–	(536.7)

GROWTH: DEMAND AT 4.5% BASED ON CONSERVATIVE ESTIMATE USING HISTORICAL COMPOUNDED RATES.

SUPPLY BASED ON ANTICIPATED CAPACITY CHANGES.

CHART 2

CHART 5

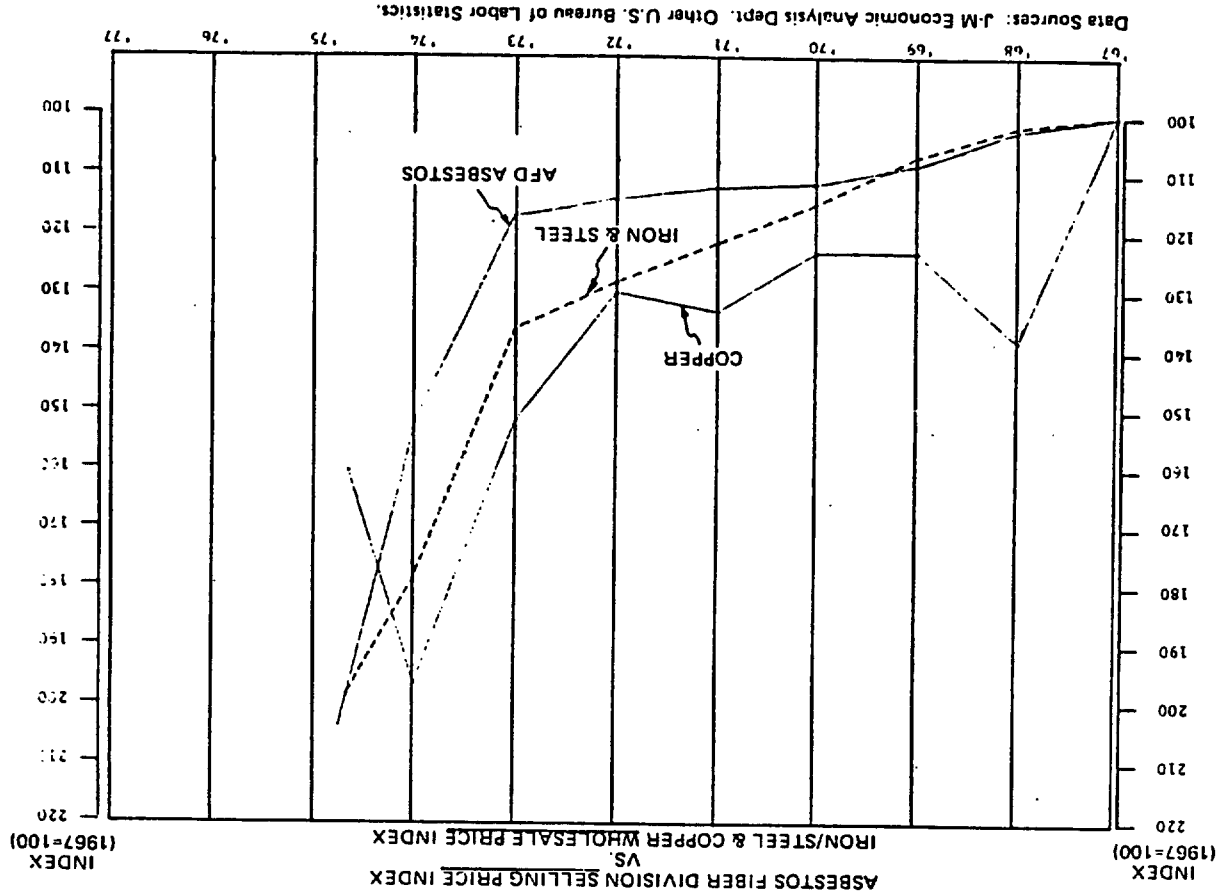


CHART 4

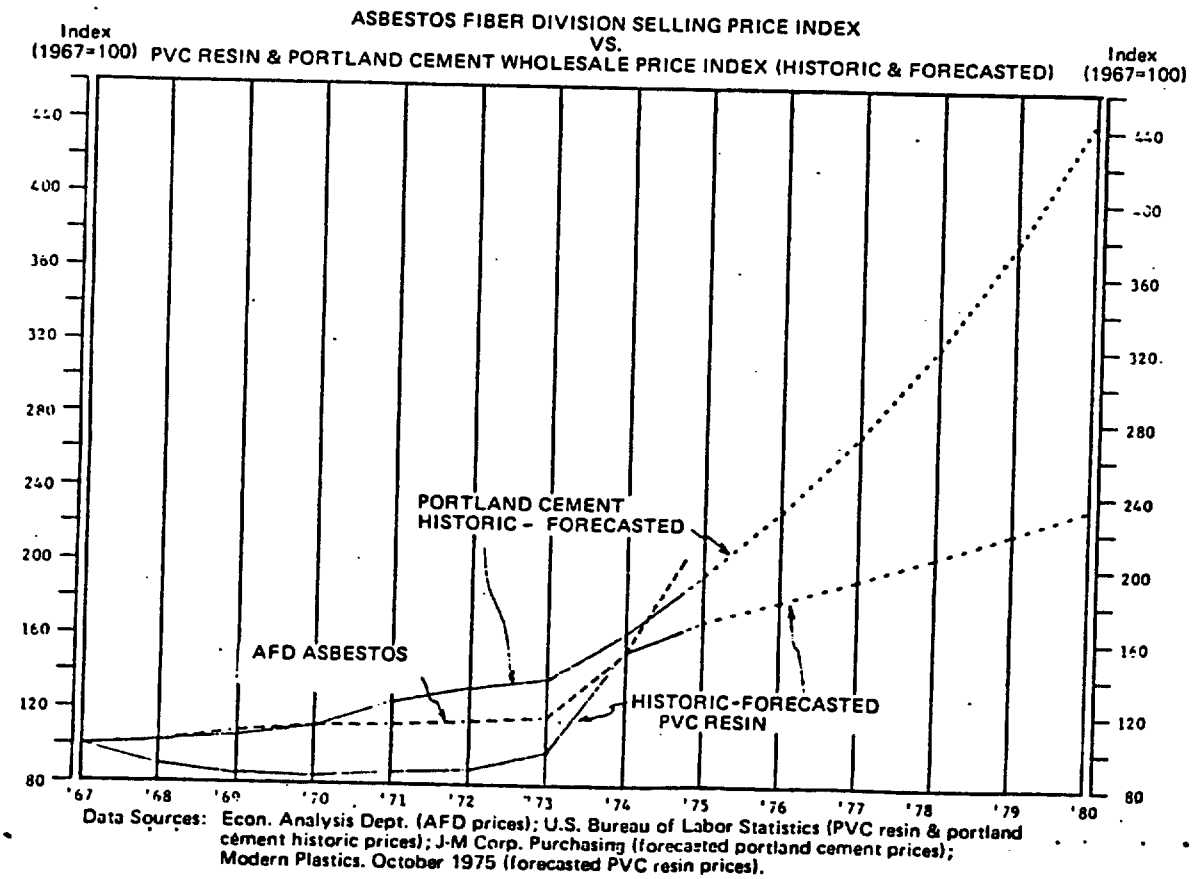
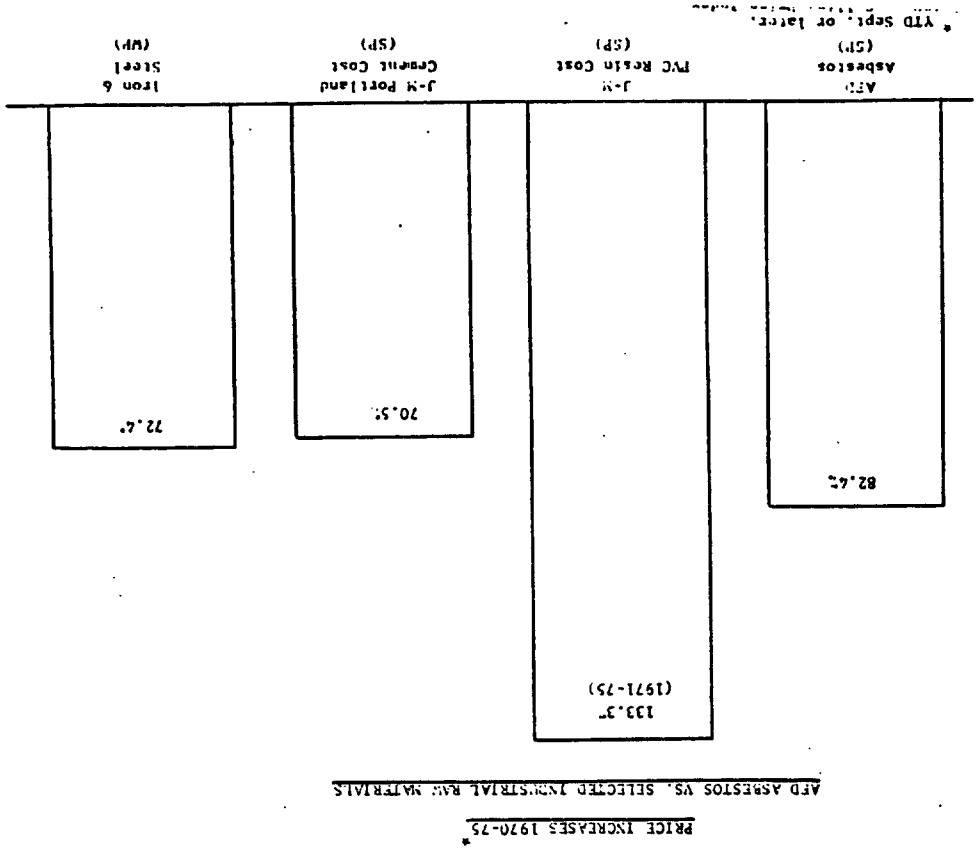


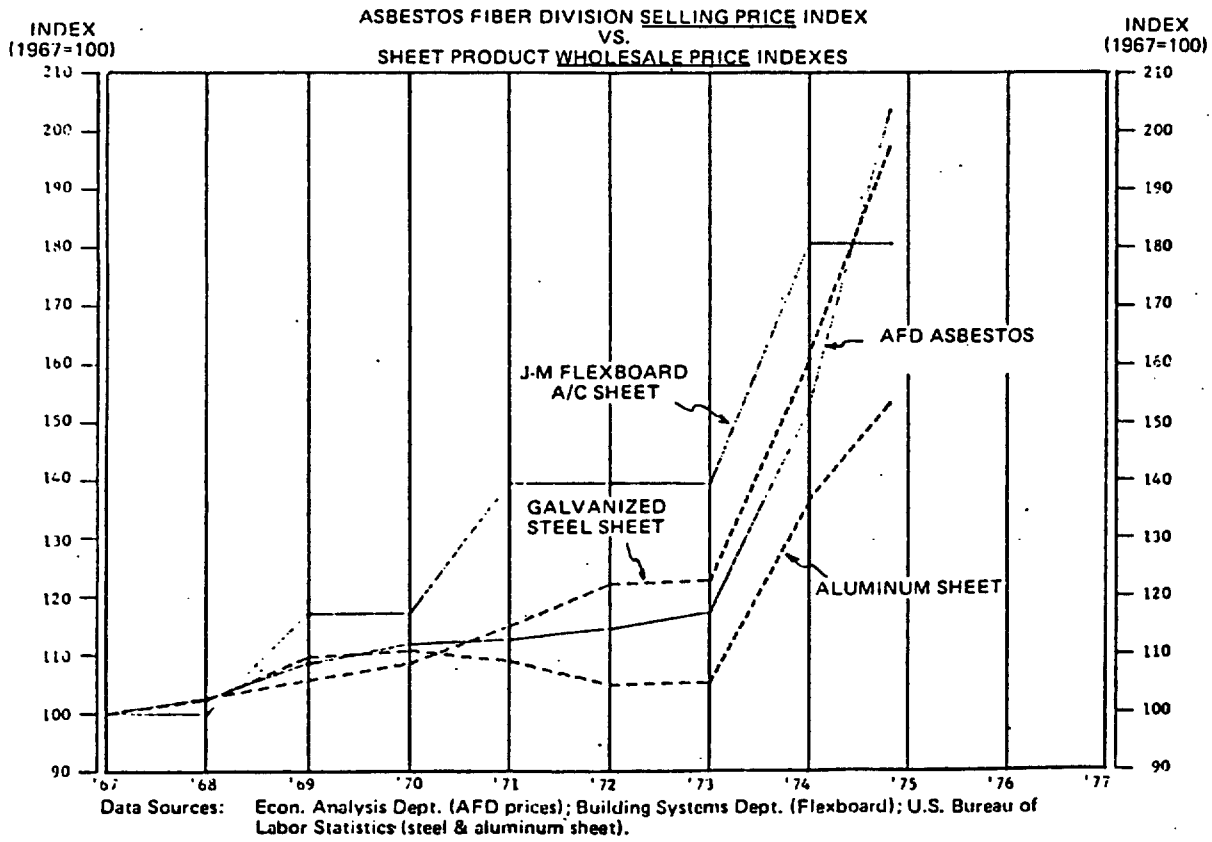
CHART 7



AFD ASBESTOS VS. SELECTED INDUSTRIAL RAW MATERIALS

PRICE INCREASES 1970-75*

CHART 6



Data Sources: Econ. Analysis Dept. (AFD prices); Building Systems Dept. (Flexboard); U.S. Bureau of Labor Statistics (steel & aluminum sheet).

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CHART 9

	4T	PERCENT INCREASE	6D	PERCENT INCREASE
JANUARY 1963	$190		$ 95	
JANUARY 1973	227	19.5%	120	26%
JANUARY 1976	492	116%	236	97%

CHART 8

PRICE INCREASES 1970-75*

AFD ASBESTOS VS. SELECTED FINISHED PRODUCTS

* YTD through Sept. or later.
** Includes shingles, roll roofing, and "other" asphalt products.
(SP) = Selling Price Index
(WP) = Wholesale Price Index

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