CA.II-145-2

UNION CARBIDE **INTERNAL CORRESPONDENCE**

CHEMICALS AND PLASTICS

270 PARK AVENUE, NEW YORK, NEW YORK 10017

To (Name) Mr. F. D. Dexter
Mr. W. S. Young
Dr. L. P. Jehle

Division Chemicals and Plastics

Location New York

Copy to

Date August 20, 1969

Originating Dept.

Answering letter date

Subject The Asbestos Market in the Flooring Industry

The Market

The total asbestos market in VA and asphalt floor tile is approximately 150,000 tons. The asphalt market has been dwindling steadily and the VA market is growing at approximately 5% per year. As a result, total asbestos sales have been relatively constant for the last few years.

At present copolymer sales of 180 MM lbs.; we estimate asbestos sales of 85,000 tons in VA tile after estimating proportion now going to Coalinga producers. The entire VA market is available to Coalinga producers.

The asphalt tile market is not as clear cut. Asbestos contents range 20-24% normally, but Coalinga fibers are used only in formulations which contain significant percentages of polystyrene. Loss of hot strength occurs with Coalinga if sufficient styrene is not present. We do not have reliable information on present asphalt formulations at the major tile companies. Historically, Johns-Manville and Armstrong have not used styrene, Kentile was borderline and American Biltrite, GAF, Uvalde can use Coalinga asbestos.

The Products

Flooring manufacturers have become quite sophisticated in a competitive market characterized by constant style innovations and new product introduction.

Asbestos from Coalinga field has been available and used since early 1962 when Johns-Manville converted their Western plants and introduced it to the market. No new asbestos technology has been added since UCC's 1964 entrance to the market with a pelletized flooring grade.

The advantages of Coalinga asbestos are high fiber content, lighter color, and less batch to batch variation. Among the grades available, UCC excels slightly in each of these categories.

Its disadvantages are high absorptivity and greater surface activity bringing about the most common complaints of excessive water sensitivity and higher cost stabilization. UCC products are no better or worse than others, but we have devoted much more R&D effort to solving them.

As things stand today, the price and simple logistics of the situation has given Coalinga products all California and Texas producers; and they are dominant in the South along the SP right of way.

Canadian asbestos enjoys supremacy in the Chicago area and the East Coast. Coalinga asbestos usage in these areas is limited to the high TiO_2 premium grades. On sum, a price vs. volume curve would best describe the market.

The Customers

From purchases of copolymer, the asbestos sales pattern in VA tile can be guesstimated, but no similar refinement exists for asphalt tile.

Asbestos Potential VA Tile (Estimate)

Customer	Location	Asbestos Source	Quantity (tons)
American Biltrite	La Mirada	UCC	1000
	La Mirada	Calif. Minerals	600
	Trenton	UCC	1000
	Trenton	Carey	3000
Armstrong	Lancaster	Carey	4800
	Kankakee	Carey	8400
	Jackson	Carey	3000
	South Gate	Calif. Minerals	1600
Flintkote	Chicago	J-M Can.	6000
	L. A.	J-M Coal.	2400
	New Orleans	J-M Coal.	1200
GAF	Vails Gate	J-M Coal.	6500*
	Joliet	J-M Coal.	1600*
	Houston	J-M Coal.	1600
	Long Beach	J-M Coal.	2400
Kentile	Brooklyn	Calif, Minerals	1600?
	Brooklyn	Carey Can.	11000
	Chicago	UCC	2500
	Chicago	Calif. Minerals	?
	Torrance	Calif. Minerals	3700
	Chicago	Carey	3600
Johns-Manville	All	J-M	9000
Uvalde	Houston	UCC	2500
Others	---	---	3500
Uvalde		Stragari	2300
		Total	84,800

Coalinga Sales including UCC 30,200
UCC alone 7,000

* Recent changeover from Canadian source to Coalinga has been reported.

The Outlook

The industry should see growth in asphalt tile over the next five years as state and federal supported low cost housing projects profligate. This factor has not been present in the past and in 1970 we should at least see a halt in the decline of sales.

Even with total housing going to 2MM, units in the early 70's VA tile will not benefit as much as sheet vinyl and carpeting. We estimate 5% growth for VA about right.

The UCC Position

To increase market share in a slow growth commodity market, there are not many options.

1. Cut Price
2. Develop product or service superiority.

If we examine the latter approach--UCC enjoys a superior position in product form--the pellet. In the flooring industry, use of SG-100 is limited to Banbury Mixer operations. This eliminates Armstrong as a potential customer (est. 17,800 tons) in a strategy based on the pellet. Though it is not necessary to sell to everybody to achieve our own goals, we should be careful not to create a competitive imbalance for a valued UCC customer.

The pellet advantages are reduction of dust hazard, and amenability to bulk handling.

The first is probably the more saleable factor. The second does bring cost advantages for some price in capital investment. But the VA, asphalt tile plant is not a choice new investment territory, unless that investment is dictated by product marketing strategies. In fact, all new investment by the industry has been toward buying into competitive markets--vinyl sheet flooring plant, carpeting. To sell bulk handling, as a part and parcel of dust hazard reduction, is like selling air pollution control. From the manufacturers' point of view, it also carries the disadvantages of a single source of supply.

In sum, the pellet form is a positive advantage to the user, but as a sole marketing strategy, it will not be a short term factor.

This leaves us with the rather unpredictable strategy of price reduction.

In a way we are following that policy now. None of the Coalinga producers followed the recent price rise on Canadian asbestos. By so doing, there opened up a slightly larger market share to Coalinga. It is also worth noting the price rise was orderly, as far as we can tell, with each producer following suit. Though there may be and probably are concessionary price structures in contractual offerings.

In the asbestos industry price has been a laissez-faire battle ground. If we move to cut prices as we did in 1965, we can expect consternation and a move to follow. To reduce repercussions, we should try to make obvious to competitors the nature and limits of our intent.

Unless we are both cautious and sophisticated in any price recession policy, we will attain only temporary advantage and create a long term problem in maintaining a diminishing market share.

Selection may be a reasonable approach. Move prices against selected competitors or for selected customers. For example, one could avoid Johns-Manville. But this reduces the available market to slightly over 40,000 tons and we would have to get over half of it. I suspect this situation would lead to excessive price cutting and confusion as to our prupose. The same result would occur for similar moves for selected customers, along with the ancillary danger of creating a disorderly market situation.

In short, a simplistic, unilateral approach is not likely to be successful.

Recommendations

Combining the positive aspects of UCC's position as to raw material, product form, and capacity, it is suggested we review the possibility of marketing SG-100 to the asbestos producing industry.

To this end we would approach all competitors and offer to supply SG-100 pellets at, say, 40 per ton, in bulk or bags, with a total quantity of 20-25000 tons available.

All the advantages of the pellet form would then be generally available to all tile manufacturers including the captive group at prices consistent with today's schedules.

We, in turn, would maintain our current business and withdraw from further active marketing. There are advantages for UCC and to the competitive producers, and if successful it will maintain a stable market value. It is also consistent with UCC's position in the chemical industry.

I suggest we discuss this suggestion carefully and if agreed upon, we move as rapidly as possible.

N. J. Setter

NJS:jr

INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS • 270 PARK AVENUE, NEW YORK, NEW YORK 10017

To (Name) Division Location: Mr. F. D. Dexter
Dr. L. P. Jehle
Mr. W. S. Young

Date: August 22, 1969

Originating Dept.

Answering letter date

Copy to

Subject: The Asbestos Market in the Flooring Industry - II

There is one more aspect to the subject report which was not covered in my letter of August 20, 1969.

The Competition

The flooring industry has always preferred to deal directly with the asbestos producer to maintain leverage on price. As a result resellers are not a significant factor.

For the major producers contract purchasers are the norm. These contracts generally carry price-volume incentives and are renewed annually.

For both VA and asphalt tile only Canadian grades 7RF, 7TF and Coalinga asbestos is used. To Canadian producers 7RF and 7TF are refined tail end products from the mills. The "money" cuts from the ore are grades 4 and 5. There has been a shortage of these grades recently and so it isn't surprising that several new mines are being opened. How much grade 7 refining is planned for these new ore supplies is unknown but the potential is there. At present there is an excess of grade 7 available for milling. However, mill capacity for 7's is limited especially with the present high demand for the longer grades.

In a typical month Canadian exports of milled asbestos will approximate 90,000 tons with 52,000 tons going to the U. S. Of the U. S. import total 37,000 tons will be grade 6 and below.

Because mills are designed to profit on grades 4 and 5 it is likely that refined grades 6-9 are treated on an incremental basis. I think we should assume the Canadian asbestos industry is not vulnerable to price recessions in grade 7.

California producers are an insignificant factor in the industry as a whole particularly in the Coalinga area. Since Coalinga ore is limited to grade 7 production, it was initially viewed as a local source for West and Southwest customers. However, in retrospect, if Union Carbide had not moved so aggressively into the area and threatened the grade 7 market, it is doubtful if Johns-Manville would have developed this source at all.

Johns-Manville

Of all producers Johns-Manville has the only captive consumption in floor tile. They also deal heavily in reciprocity exchanges with GAF and Flintkote. We estimate total asbestos sales to VA flooring at approximately 31M tons -- of this at least 9,000 tons are captive.

Other than the above, floor tile manufacturers prefer not to deal with a competitor.

Johns-Manville is also the only Canadian producer active in Coalinga. We estimate Coalinga mill capacity at 25-30,000 tons per year and operations at 70% capacity and profitable.

J-M is an important UCC customer for phenolics and epoxies. They can be expected to threaten this business if we bring price pressure to bear on SG-100 or SG-144.

Philip Carey

Carey is now a subsidiary of Glen Alden Corporation -- a conglomerate which also holds Playtex, BVD, Schenley, Swift Textiles, RKO-Stanley Warner, etc. Carey net sales for 1968 were $97MM but this includes a wide range of building products and accessories. They represent 12% of Glen Alden sales.

While independent, Carey was quite interested in a joint venture at Coalinga with UCC. Nothing came of it because we wished to go it alone.

Carey provides the best available Canadian asbestos to the floor tile industry. Their volume of 33,800 tons to VA tile is mostly in 7RF-9.

Presumably Carey would be more receptive to any proposal giving them access to Coalinga fiber, since their market share is more vulnerable having no captive and no known reciprocity agreements.

California Minerals

Originally known as Atlas this business changed hands in 1966-67 and is now owned by the individual holding the mine property.

Sales appear to be in the hands of resellers though we know of personal dealings between the owner and Mr. Kennedy of Kentile.

We are unsure of the amount of sales to flooring but would estimate a minimum 10,000 tons. Mill capacity is estimated at 25,000 tons. Overhead is minimal and if sales are 50% capacity the mill should be profitable.

Of all competitors in this market California Minerals is the most vulnerable. We have captured their business at American Biltrite's plant in Trenton, mostly because of difficulties between their agent and the P. A. at Trenton on quality consistency and delivery.

If UCC severely reduces the price of its flooring grades it is unlikely that California Minerals would be able to follow.

N. J. Setter

NJS/ds