

**NORTH
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**amosite
asbestos NEWS
crocidolite**

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DIFFERENCES: AMPHIBOLE AND CHRYSOTILE - Naturally, because it is our sole stock-in-trade, the NAAC Newsletter dwells primarily on Amphibole fibre - Amosite and Crocidolite asbestos. As most of our readers know, of course, Chrysotile asbestos is, by far, the dominant fibre in quantity, accounting for over 93% of all asbestos used worldwide, compared to 6-7% for Amosite and Crocidolite combined. In many applications, Chrysotile and Amphibole fibres are used together to create end-products which are of better quality than if either fibre were used alone.

A relatively easy way to think of the difference between Amphibole and Chrysotile fibres is in the structure of the fibres themselves. Scientists have shown that a fundamental difference exists in that Chrysotile fibres are hollow, and Amphibole fibres are solid. This partially explains why Amosite and Crocidolite (Blue) fibres are hard and springy, and why the white Chrysotile fibres are softer, more flexible and absorbent. Electron micrographs also show that Amphibole fibres are larger in diameter, around 0.1 microns compared to 0.02 microns for Chrysotile fibres.

Blue and Amosite fibres produce a great flocculent volume when fiberized; and, while the length of all asbestos fibres depends upon the grade, Amphibole fibres are considerably longer than Chrysotile fibres of similar grades. Pound for pound and ton for ton, Amphibole fibres, due to their stiff-resilient nature, will fiberize to a much greater volume than Chrysotile; also, the longer lengths of both Blue and Amosite are less costly than comparable lengths of Chrysotile. The majority of Chrysotile production is in Canadian Standard Grades 6, 7, and 8, which average about 1/16-inch in fibre length, whereas the very shortest grade of Amosite and Crocidolite averages 1/4-inch or more in fibre length. The longer Amosite and Crocidolite fibres are particularly advantageous pricewise where reinforcement is a primary consideration.

MORE ON QUEEN'S AMOSITE - An article in 'Cape Review 1969', published by the NAAC parent group, Cape Asbestos Co., Ltd., sheds additional light on the use of more than 2.3 million square feet of 'Marinite' in the construction of QE2 (Queen Elizabeth 2) - "the finest ship afloat." Marinite, a rigid marine insulation which contains generous quantities of Amosite asbestos, was used virtually throughout QE2 to provide sound conditioning, insulation, and the all-important incombustibility. During construction of this most luxurious of the luxury liners, over 70,000 Marinite sheets and 2,000 doors were delivered to

North American Asbestos Corporation, a member of the Cape Asbestos group of companies, is the leading marketer of amosite and crocidolite fibers in North America



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the various QE2 contractors. The ship is considered the most 'highly fire-protected' on the seas today. Somewhat strangely, no passenger will see the Amosite-based insulation sheets, however, as they are all covered with fine hardwood veneers, plastic laminates, or other decorative treatments which enhance all of the present and past Queens' traditions of "breathtaking beauty built on the soundest foundations."

DOLLAR VOLUME UP - The dollar value of Chrysotile asbestos shipments from Canada rose to \$196,759,000 in 1969 from \$185,024,662, according to the *Montreal Gazette*. Total tonnage of asbestos shipped was said to be about the same.

LOOKING IN ARIZONA - A recent publication of the Arizona Bureau of Mines and the U.S. Government indicates that "the future of asbestos mining in Arizona will depend greatly on the approach taken in the search for undiscovered resources."

MINING IN MEXICO - A new company to be owned 51% by government and the remainder by others is being formed to mine and mill Chrysotile asbestos found in Mexico, according to *Asbestos*. Plans call for a plant to handle about 300 tons of ore per day. Up to now, Mexico has not produced asbestos fibres. Meanwhile, another company has found "substantial tonnages of commercial material" in Southern Mexico.

OUTPUT IN CYPRUS - Asbestos production "continues to be an important part of the country's economy" on the tiny Mediterranean Island of Cyprus. Production in 1968 was 17,242 metric tons, and the factory at Moni turned out over 1,000 tons of flat, corrugated, and moulded a/c products.

ASBESTOS OUTLOOK 'GOOD' - In an article on asbestos in last month's *Canadian Mining Journal*, W. G. Jeffery, of the Canadian government, characterized the 1970 outlook for asbestos as 'good.' He indicated that overall growth in production and sales is expected to be about 4%. "The most sensitive factor," he wrote, "will continue to be the sustained demand from the United States for Canadian fibre. The present balance situation is a reflection of the capability of the industry to have foreseen the current demands and to have initiated the large expansion programs that take several years to develop."

While there have been some predictions of a possible asbestos 'shortage' in the years ahead, Jeffery does not agree. He wrote: "Although there may be periods of tight supply, especially for some fibre grades more than others, it is unlikely that a severe shortage will occur. The bulk of fibre output is used in the construction industry, which is highly competitive in terms of available materials." He did indicate one possibility for change: "The USSR asbestos production has become so large (2 million tons, or so) that minor changes in their domestic consumption pattern could release fibre for additional exports in amounts that are small in terms of total output but of considerable size in relation to world trade."

INCIDENTAL INTELLIGENCE - Going price for baby elephants from Southern Africa is only about \$1.50 to \$2 per pound for the 400 to 500 pound animals...but, you must be "a deserving zoo or game farm" to get one...Short grade asbestos fibres are being added to cement grout to stop leaks in concrete mine shaft liners - in, of all places, asbestos mines in Canada...An American company has developed an asbestos-containing spray paint, caulking, and other substances which won't burn in a 100% oxygen atmosphere...And, versatile asbestos isn't gun-shy...another American firm has patented a 40% asbestos, gas-impermeable wadding for cartridges.