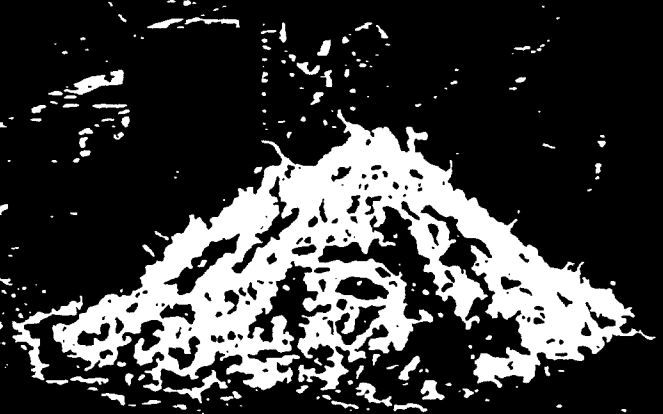
PLAINTIFF'S
EXHIBIT
ASA-228

LAKE

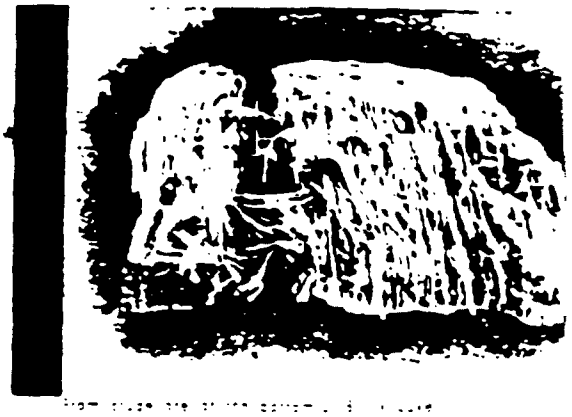


ASBESTOS



ASARCO

LAKE ASBESTOS OF QUEBEC, LIMITED



ASBESTOS...PARTIC

THE geologists tell us that asbestos developed millions of years ago in rock formations throughout the world. It was first recognized by the Greeks about four centuries before the Christian Era. They used it as wick in a vessel of oil and described it by the counterpart of our word "asbestos," meaning, to them, "inextinguishable" and, by extension, "incombustible."

While asbestos was observed on several occasions in Europe and Asia during subsequent centuries, it was largely lost to view during the Middle Ages. Not until the first years of the 19th Century did it begin to be a commodity of importance. Watts' invention of the steam engine led to the practical use of asbestos for packing glands and as insulation to prevent loss of heat. Again, the use of asbestos was tremendously stimulated by the advent of the automobile. This created a demand for friction devices such as brakes and clutches, and for gaskets to retain heat and compression.

During recent decades the sensational spread of utility in asbestos cement products has been largely due to the strength, impact resistance and abrasion resistance which asbestos has conferred on otherwise brittle products. Meanwhile many plastics – because of asbestos reinforcement and its contribution to heat resistance—have enjoyed a similar sensational growth.

Geologists recognize more than thirty asbestiform minerals. Only six of these are of commercial importance and of these, chrysotile accounts for 95% of the world's production. It is the best long-fibred asbestos and the most suitable for textile fabrication.

Characteristics and properties of LAKE ASBESTOS

Asbestos is a fibrous substance, often characterized as "mineral silk." Yet no other fibre approaches asbestos in fineness. The average human hair is 1000 to 2000 times the diameter of asbestos fibre. The fibres are believed to be of 250 angstroms or less in diameter and, like human hair, round and tubular in cross section.

Asbestos is not only the finest but certainly one of the strongest fibres known. Tensile strengths exceeding the 300,000 psi of piano wire have been observed. These compare with cotton fibres – up to 125,000 psi – with silk at 80,000 psi and ordinary iron at 45,000 psi. The extremely small fibres and their tremendous surface area – ten to fifteen times that of silk or cotton – account for the remarkable bonding characteristics of asbestos with most binders. To the extent that bonding is a function of surface area, it is interesting to note that the total outside surface area of one cubic inch of solid asbestos fibres of average diameter is very close to six *acres!*

Asbestos is incombustible and flameproof; freezing and thawing have no effect on it; it resists moisture, mildew, rot, corrosion, vermin, micro-organisms and many corroding chemicals. Moreover, it confers a great measure of these characteristics on other substances with which it is compounded.

Asbestos retains a relatively high proportion of its strength at elevated temperatures. It is a poor conductor of heat, especially in fabrics, which enclose air between the yarns

ALV 0015795



LAKE CHRYSOTILE

or threads. Repeated exposure of asbestos insulation to blow-torch flames has shown that surface temperatures are hundreds of degrees higher than those measured only one-eighth inch below the surface where the flame impinges. Another test subjected Cerastex, a combination of asbestos cloth and ceramic clay, to a direct torch burn-through test. Cerastex stood up 37½ times as long as stainless steel. It is to this freedom from heat transfer that asbestos owes its remarkable insulating properties.

Asbestos is also a poor conductor of electricity and therefore a good electrical insulator. This is especially true if the fibres are processed during milling to remove most of the magnetic iron content, a common impurity.

LAKE ASBESTOS CHEMICAL AND PHYSICAL DATA

Note: Both chemical and physical data vary somewhat but Lakes Asbestos of Quebec, Ltd. will gladly advise you, if requested, on the characteristics of any LAKE Asbestos you buy.

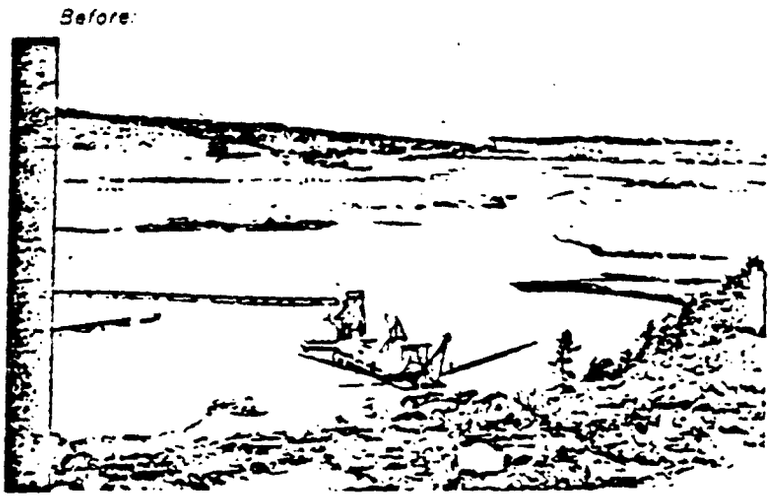
Typical Analysis % by Weight

MgO	40.6
SiO_2	39.8
Al_2O_3	0.7
FeO	1.3
Fe_2O_3	2.3
CO_2	0.5
Loss on Ignition	14.0

Physical Constants

Tensile strength. The range is broad but figures as high as 400,000 psi have been recorded.
Modulus of elasticity, psi 28.5 x 10^6
Fusion point 2770°F
Maximum ignition loss occurs at 1300°F
Specific heat, BTU/lb/°F 0.268
pH 9.6-9.75
Surface area 10 sq.m/gm
Electrical charge positive
Finite fibre diameter: 180 to 250 Angstroms
(0.000000708" to 0.000000980")

AV 0015786



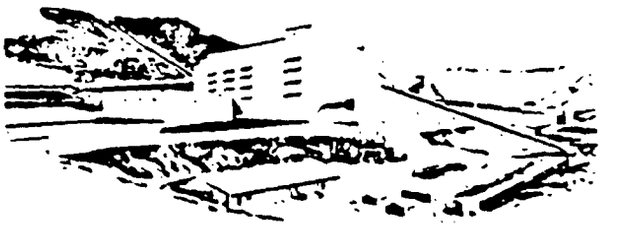
THE presence of older asbestos mines in the immediate neighborhood of Black Lake, Quebec, suggested the possibility that there might be a great body of asbestos-bearing serpentine rock beneath the lake. Drilling confirmed the belief but raised the question of how the ore was to be removed. Underground mining was obviously impractical while open-pit mining was certain to present vast and costly problems.

With the backing of American Smelting and Refining Company, $36,000,000 was invested by Lake Asbestos of Quebec, Ltd., to develop the modern mine and mill now in full operation at Black Lake. The project involved pumping 33 billion gallons of water . . . a ten-year supply for 250,000 families! The overburden removed was enough to cover twelve square miles a yard deep! A river was given a new course, basins and dams erected to maintain area drainage, and a main highway moved to a new location.

The mine which now lies below the old lake bed has proved reserves of high-grade asbestos ore for many years of operation.

The mill is modern in ery respect that contrib...es to quality of product, efficiency of production, safety and comfort of its employees. It handles 6000 tons of ore per day and produces, at capacity, 100,000 tons of asbestos fibre per year. The modern equipment and processes produce 28 standard grades of fibre and some special grades. The employees are largely of local origin and traditionally expert in the mining and milling of Quebec's high-quality chrysotile asbestos ores.

THE STRUCTURE OF THE INDUSTRY



The asbestos industry includes (1) primary producers w mine, mill, grade and ship asbestos; (2) processors w use asbestos as a reinforcer with other materials, or conv it to various textile forms; (3) manufacturers who use b or asbestos intermediates to make finished produ such as pipe, board, gaskets, paper and a world of oth products. Some manufacturers engage in more than o of these functions.

Lake Asbestos of Quebec, Ltd., is a primary producer asbestos fibre and an important addition to the world supply of first-quality asbestos.

Also an influence on favorable costs to manufactur using asbestos has been the relatively low cost of t material and its stable price history and adequate supp over a long period of time.

ALV 0015787

ASBESTOS

After



GLV 0015799



Courtesy of The Ruberoid Company
Asbestos cement siding for homes

Courtesy of Asbestos Cement Products Association
Asbestos cement corrugated sheets (Miami International Airport)

Courtesy of Johns-Manville
Asbestos cement siding for homes

THE USES OF ASBESTOS

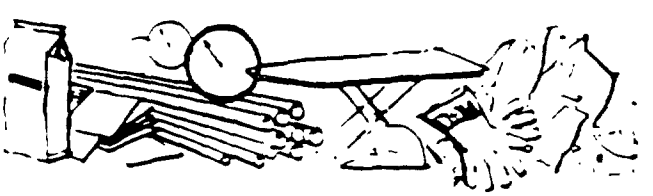
IT is interesting that the earliest known uses of many materials continue to be accepted uses through generations and even centuries: not displaced in their functions by new materials or technological advances. Gold and platinum were known as ornamentation and a medium of exchange in Central and South America before the Spanish conquest. Lead was used for pipes to convey water from the aqueducts to the homes of Roman nobles. Similarly, the earliest known use of asbestos as a wick is identical with its use today in oil burners, of which uncounted thousands are in use. Asbestos in the form of cloth was used in Egypt three or four thousand years ago to wrap the mummies of departed Pharaohs and their queens. During the ancient days, it was used for sails for fighting-ships to prevent the sails from being burned by flaming pitch thrown by attackers.

Yet research and technology have exercised their influence on asbestos as on most other materials and it is likely that few people are aware of the hundreds of products of which asbestos is a part, or of its broad contribution to everyday life, more especially as a reinforcing agent for other materials.

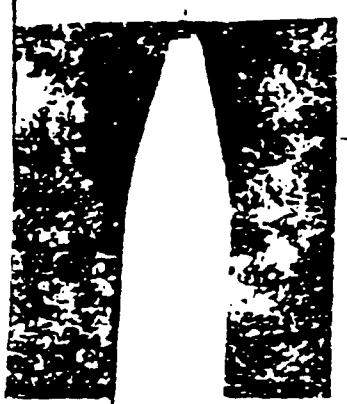
Steam pipes are insulated with asbestos, both to prevent loss of heat and to protect people from burns. Cold water pipes are protected from condensation and dripping. Workmen's asbestos clothing guards against splashes of molten metal up to 3000°F. Asbestos insulates electric wires and other conductors. It contributes long wear to brake shoes and clutch facings which are subject to continual friction. Asbestos is used in floor tiles for impact and abrasion resistance. In siding and shingles asbestos provides resistance to sun and storm and fire. Asbestos cement sheets, flat or corrugated, provide clean and strong fireproof material for interior and exterior construction. In adhesives and paints it prevents checking and cracking. It dampens both sound and mechanical vibration in ductwork and other light construction attached to rigid members. Asbestos has lately been used in rocketry to add reliability to small parts operating at high temperature.

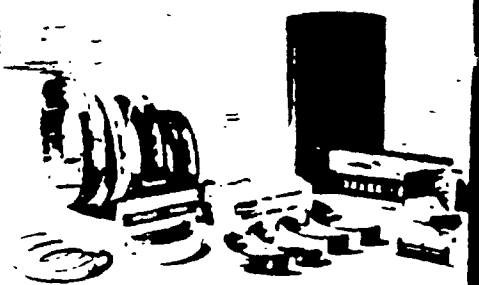
The foregoing

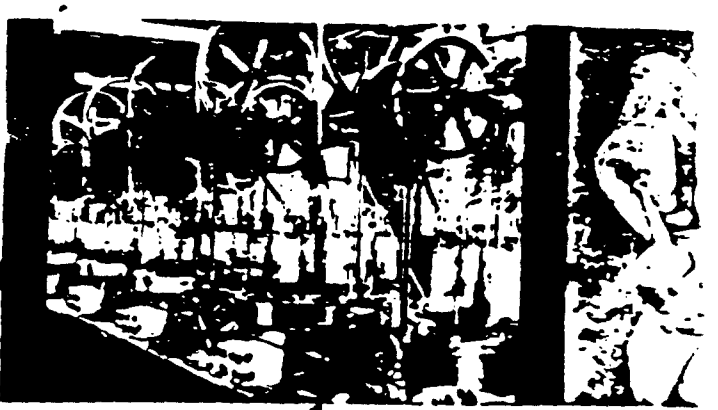
names but a few of the hundreds of uses. The following list gives a more detailed view of some of the products and functions in which asbestos plays an essential part.



AIV 0015799









SOME OF THE MORE IMPORTANT USES OF ASBESTOS

Acoustical ceilings
*Adhesives
*Adhesive wall sprays
Annealing blankets
Atomic energy shielding
*Auto undercoats
Bags (for filtering dust without fire hazard)
*Battery boxes
Blankets (insulating and fire-smothering)
Brake linings
Caulking (chemical containers)
*Cements
Cloth
Clothing (protective)
*Clutch facings
*Coatings
Conveyor belts (for carrying hot objects)
Cord (for electric pads and blankets)
Decorative "snow"
Diaphragms (electro-chemical)
*Draperies
*Dryer felts (for paper-making machines)
Filters (lye, sugar, corrosive liquids, beer, wine, oils, dust, etc.)
*Fire-proofing cement
Fire-smothering blankets
Floor tile
Furnace hoods
Gas filters
Gaskets
Greases
Gypsum board joint filler
Insecticide carriers
*Instrument shielding
Insulation (power, heat, building)
Ironing board covers
*Linings (stoves, heaters, furnaces)
Lubricating greases
*Marine construction materials
*Millboard
*Noise dampeners
Oil-well muds
*Packing
Paints
*Paper
*Pipe insulation
*Pipes and piping
*Plastics
*Polishing cloths
Press covers (for drycleaning)
Protective clothing
Radiator sealing compounds
Rocket discharge shielding
*Roofing felts
*Roofing tiles and slates
Rope (caulking and gasketing steam and air lines)
Safety clothing
*Sheets (structural)
*Shingles (roof and siding)
Table pads and mats
Theater curtains
*Tubing (insulation for cables and pipes)
*Vibration dampeners
*Wall coverings
*Wall tile
*Welding rod coatings
Wicks
*Wiping pads
*Wrappings (thermal and electric insulation)

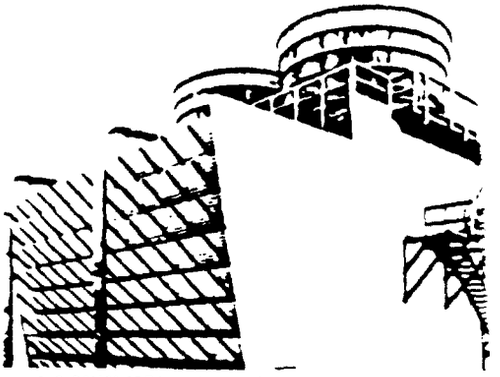
*Denotes uses in which reinforcement for strength, impact resistance or abrasion resistance is an essential function of the asbestos content

ALV 0015790



Courtesy of Columbia Acoustics and Fireproofing Company
[illegible] construction
Commercial Credit Building, Baltimore, Md.)

[illegible] heat shield and acoustical treatment



[illegible] asbestos cement [illegible]
Courtesy of Asbestos Cement Products Association

LAKE ASBESTOS *with Cement*

Early in the 1900's the first asbestos cement sheets were made in Europe. A decade later saw the first efforts to make asbestos cement pipe with the object of obtaining a low-cost non-metallic, non-corrodible pipe free from the brittleness and inferior mechanical strength of cement alone. Since that time there has been a tremendous growth in the production and use of these virtually indestructible products. The combination of asbestos and cement has proved to have superior resistance to fire, chemicals and impact; is mechanically strong; has excellent tensile strength and is durable in the presence of corrosive atmospheres or gases.

The usual formulation is one part of asbestos to seven or eight parts of ordinary Portland cement. These are compounded in a slurry and formed in a manner not unlike that used for making paper. The process produces flat sheet or pipe. Sheets, while "green," can be cut or molded to make a variety of shapes. Sizable structural panels are formed under hydraulic pressure.

The following are typical of asbestos-cement products:

Boards. For interior and exterior walls and partitions.

Cements: Many kinds are made for indoor and outdoor use. Some are supplied dry and ready to use when mixed with water.

Chimney casings.

Electrical equipment. Conduits, panels and switchboards.

Pipe. Flue pipe requiring resistance to heat and corrosive gases. Pressure pipe — up to 200 psig — for water supply, fire lines and sewage.

Piping: Process lines for handling mild acids including fruit acids.

Sheet. Flat and corrugated for industrial buildings.

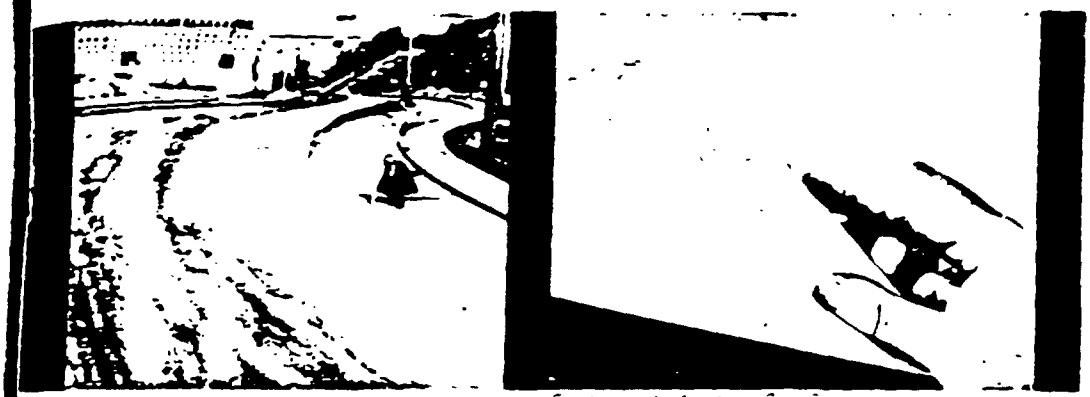
Shingles. For roofing and siding. Resistant to fire, rot, termites and other vermin. Asbestos-cement roofing shingles are relatively light.

LAKE ASBESTOS *with Plastics*

During recent years plastics molders have been combining asbestos with their resins, and the use of short fibres in resins for cold molding, compression molding, injection molding and thermoset molding parallels the remarkable development of plastics as an engineering material. The strength and fineness of asbestos fibres, combined with their enormous surface area and bonding characteristics, form a reinforcing structure in plastics in the way that steel does in concrete. Of course, the structure is infinitely more complex and more nearly homogeneous.

From the standpoint of the molder, asbestos offers the advantage of making parts of greater strength with better finish; plasticity is controlled; mold shrinkage minimized; there is no surface crazing and parts show minimum creep as they age. These are among the "good molding characteristics" of asbestos-plastic compounds which make them

ALV 0015791



Courtesy of the Armstrong Cork Company
Hydrocord, water resistant backing material for resilient flooring and wall covering.

generally superior to other reinforcers or fillers which have been used with plastics.

Asbestos fibres have been used with silicones, phenolics, epoxies, furanes, polyesters, vinyls and other resins. Structural members of asbestos and silicone resins have been observed to retain as much as 50% of their tensile strength after five to ten hours of exposure at a temperature of 1200°F. Asbestos-phenolic compounds retain their insulating value after 30 minutes' exposure to temperatures as high as 3000°F. Tanks and other vessels of asbestos-resin compounds show high resistance to chemical attack which would greatly impair the soundness of plastics alone.

From the user's standpoint, parts or members made from asbestos-plastic molding compounds, or as laminations, will show some combination of the following properties:

Low cost

High and prolonged resistance to heat and flame (low thermal conductivity keeps the highest temperature at the very surface of exposure).

Exceptional dimensional stability and retention of strength – often exceeding that of light metals – at extremes of temperature.

High modulus of elasticity and strength

High stiffness and toughness

High resistance to chemicals, water, weather and corrosive atmospheres

Smooth surfaces, not liable to checking and cracking

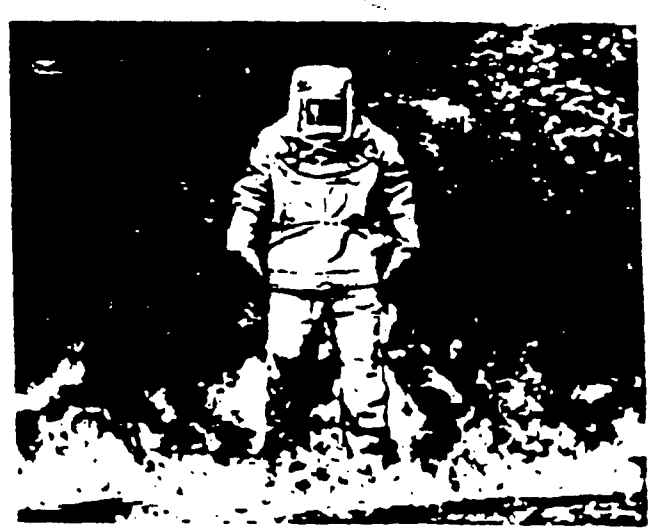
Controllable friction properties

Controllable electrical properties

Dampening of noise and vibration

Machining properties like brass or hard wood

Which combination of properties is desired and how it is to be attained is something usually determined by consultation between the buyer and the plastics molder. Lake Asbestos of Quebec, Ltd., also makes available the services of Asarco's Central Research Laboratories at South Plainfield, N. J.



ALV 0015792



Following is a representative though by no means complete list of products made of asbestos-reinforced plastics. Again it will be noted that the function of asbestos in most products is to reinforce them, or give them superior resistance to some destructive agent to be encountered in service. The plastic use of asbestos to resist flame or heat, though still important is subordinate to the reinforcing functions in which it serves today.

Adhesives
Aircraft parts
Air-tool parts
Armature insulation
Auto ignition parts
Auto undercoatings

Bearings
Board
Boat parts
Brake linings
Building panels
Bushings

Cements
Cloth
Clutch facings
Coatings: for tanks, pipes, poles, railroad sleepers, etc.
Compressor parts

Dielectric materials
Ducting

Electrical appliance parts

Felts
Filters
Floor tiles

Gaskets
Gears
Glider parts
Grips

Handles
Helmets

Impregnated felts
Insulating cements

Journals

Kettles

Laminates

Mastics
Millboard
Missile nose cones
Missile parts

Packing
Paints
Paper
Pipe and piping
Plastic molding compounds
Pump parts

Radar scanner parts
Radio parts
Railway parts
Refrigerator parts
Rods
Roofing compounds

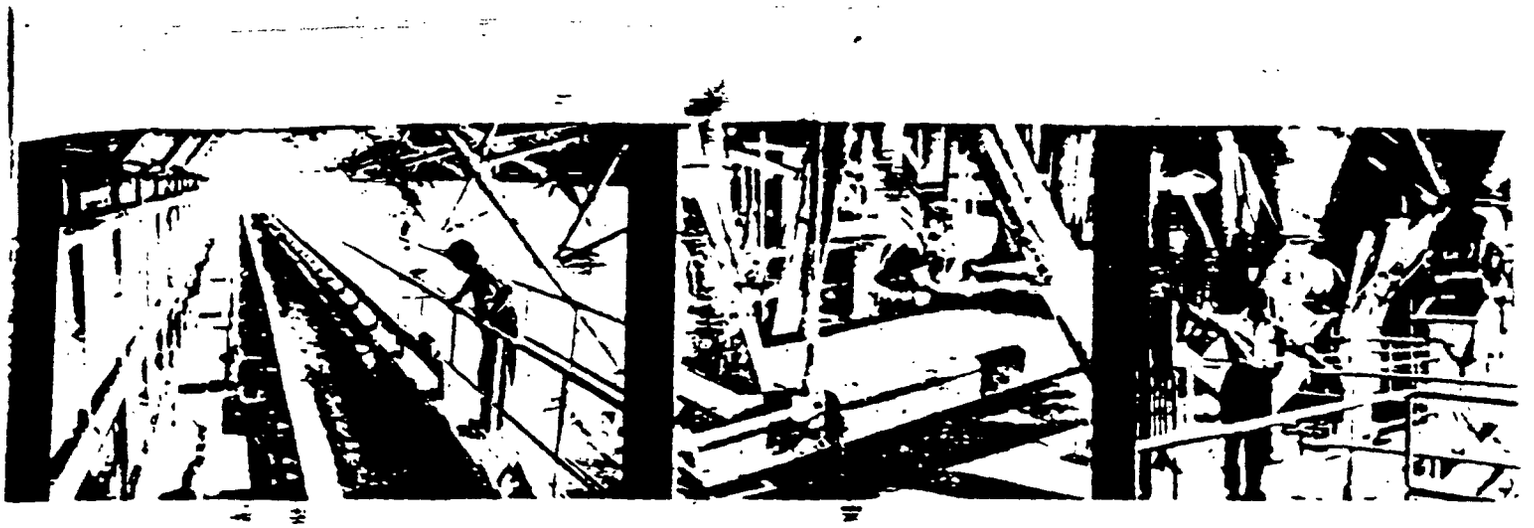
Sewer pipes
Sheets
Storage tanks
Switchboards
Switch boxes

Tank covers
Tanks
Transmission parts
Tubes

Vending machine parts

Wall tiles
Washing machine parts

ALV 0015748



AVAILABLE GRADES

Asbestos is classified or graded as "Crude Asbestos" or "Milled Asbestos."

Crude asbestos is hand-selected cross-vein material of longest fibres in native or unfiberized form. It comes to the buyer in chunks and must be mechanically processed to develop the usefulness of the fibres.

Milled asbestos consists of many grades of fibre produced by varying degrees of mechanical treatment and graded in the Quebec Standard Asbestos Testing Machine. This device automatically sorts a 16-ounce sample of fibre shaken at a set rate for a set time into four superimposed screened boxes of which the topmost retains fibres above ¼" in length and the lowest receives fines not retained on the screen of diminishing graduation above.

The grading of the sample reflects the number of ounces of the 16-ounce fibre sample left in each of the four boxes.

The table shows available standard grades of LAKE Asbestos fibres. The first column shows the standard grade identification.

The second column shows the proportion by weight of longest to shortest fibres in the grade.

The next three columns (under C) are a refinement or amplification of Canadian Standard classifications. They have been devised by Lake Asbestos of Quebec, Ltd., to indicate the degree to which the fibres have been opened by processing. Thus the user may desire *well opened* 6D fibres in his end-product. If his own processing opens the fibres quite freely he will order LAKE Asbestos 6D3 or 6D4 so that, after processing, he will end up with fibres of the desired degree of openness.

Generally the third digit in the classification indicates the degree of openness of the fibre. Thus a +T3 is less open than a +T4.

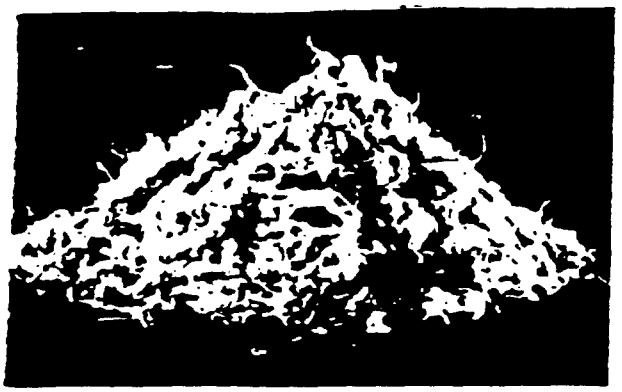
Fibres with degrees of openness different from those shown below can often be supplied to meet special customer requirements.

The table shows 27 grades of LAKE Asbestos in one or more degrees of openness. Other grades can be tailored to the customer's specification.

The LAKE Asbestos grade classification – following and amplifying the Canadian Standard – appears on each bag of LAKE Asbestos.

Shown below are the Canadian Standard Grades produced by LAKE Asbestos. The grades shown in column "C" are those which are available for prompt shipment.

AV 0015794







FIBRE GRADES*

LAKE ASBESTOS FIBRE STANDARD GRADES

A STANDARD DESIGNATION OF GRADE	B GUARANTEED MINIMUM TEST	C CURRENT LAKE ASBESTOS GRADE CLASSIFICATION			D MINIMUM CARLOAD QUANTITY	E FREIGHT CLASSIFICATION
3K Fibre	7 – 7 – 1½ – ½	.....	.....	.....	20 Tons	Fibre
3R "	4 – 7 – 4 – 1	3R3	3R4	.....	" "	"
3T "	2 – 8 – 4 – 2	3T3	3T4	.....	" "	"
3Z "	1 – 9 – 4 – 2	3Z3	3Z4	.....	" "	"
4A "	0 – 8 – 6 – 2	4A3	4A4	.....	" "	"
4D "	0 – 7 – 6 – 3	4D3	4D4	.....	" "	"
4K "	0 – 4 – 9 – 3	4K3	4K4	.....	" "	"
4M "	0 – 4 – 8 – 4	.....	4M4		" "	"
4T "	0 – 2 – 10 – 4	4T3	4T4	4T5	" "	"
5D "	0 – ½ – 10½ – 5	5D3	5D4	5D5	" "	"
5K "	0 – 0 – 12 – 4	5K3	5K4	.....	" "	"
5M "	0 – 0 – 11 – 5	5M3	.....	.....	" "	"
5R "	0 – 0 – 10 – 6	5R3	5R4	5R5	" "	"
6D "	0 – 0 – 7 – 9	6D3	6D4	6D5	30 Tons	Waste
7D "	0 – 0 – 5 – 11	7D3	7D4	7D5	" "	Shorts
7F "	0 – 0 – 4 – 12	.....	7F4	.....	" "	"
7H "	0 – 0 – 3 – 13	.....	7H4	.....	" "	"
7K "	0 – 0 – 2 – 14	.....	7K4	.....	" "	"
7M "	0 – 0 – 1 – 15	7M2	7M4	.....	" "	"
7R "	0 – 0 – 0 – 16	7R2	7R4	7R5	" "	"
7T "	0 – 0 – 0 – 16	.....	7T4	7T5	" "	"
7RF "	no test	.....	17R4	.....	" "	"
7TF "	no test	.....	17T4	.....	" "	"
		.....	.....	.....		

*effective January 1, 1964

Warehousing and Shipping Point

Black Lake, Quebec, Canada

Purchasing Information and Price Lists

From: Lake Asbestos of Quebec, Ltd., 120 Broadway, New York 5, N. Y. Telephone REctor 2-9500
Cable address: LAQBESTO NEW YORK

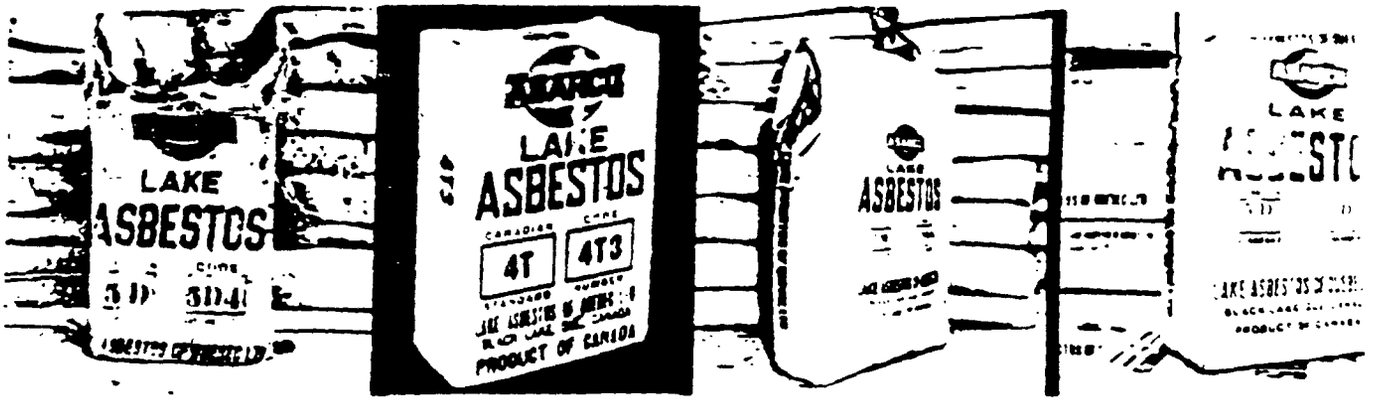
From: agents or representatives in many parts of the world whose names and addresses we shall be glad to supply if you will notify us of your interest.

How to Order:

To expedite your order, provide the following information:

1. *Grade* e.g: 3K, 4T, or 6D (indicates fibre length)
2. *Opening* – e.g: 4T3 (third digit indicates fibre opening – the higher the number the more open the fibre)
3. *Packaging* – e.g: pressure-packed paper or jute loose-packed paper or jute pressure-pack often solves storage problems)
4. *Method of Shipment* – by truck, rail or steamship

AV 0015795



PACKAGING

Several years of experience with hundreds of customers have led us to standardize on the following package

Style of package: **Pressure-packed**

Weight of package: **100 pounds**

Package material: **Jute, paper or polyethylene**

Size of package: **16" x 24" x 9"**

Users report the following as some of the benefits from this popular style of package:

- The package is easy to handle and allows safer stacking.
- The package takes less room for a given weight and is the best choice where storage space is at a premium.
- Rail shipments are more economical because pressure-packed bags make more weight per car. Being more compact, they hold almost twice as much fibre in the same space as loose-packed bags.)
- Ocean freight rates – computed by volume – work out to savings of $2.00 to $2.50 per ton as compared with loose-packed bags.
- Pressure-packed asbestos fibre can be easily palletized on 40- x 48-inch pallets.

For situations in which moisture absorption in shipping and storage may be a consideration, we recommend the polyethylene package. The polyethylene bags are packed with asbestos fibre at a moisture level of approximately 1.2%. The bags are strong . . . don't tear or split under rough handling . . . *eliminate moisture build-up* when stored indoors or outdoors regardless of humidity.

Delivery

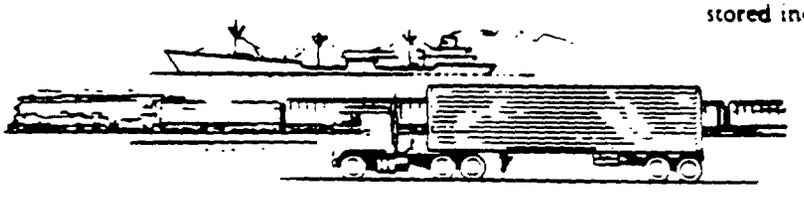
F.O.B. Black Lake, P.Q., Canada.

Continental deliveries by rail or truck.

Overseas shipments from the following points:

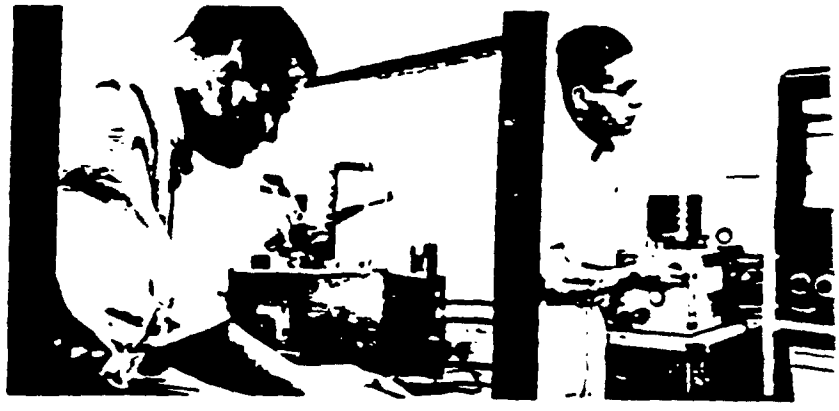
Summer: Quebec City, Three Rivers and Montreal, P.Q.

Winter: Halifax (Nova Scotia), St. John (New Brunswick)



The buyer of Lake Asbestos fibre has a choice of other types of packaging including loose-packed jute and valve type paper bags. However, it is recommended that buyers consult with Lake Asbestos Sales Service Department on the packaging and shipping factors which affect the *ultimate* cost of the finished product in which asbestos is used.

ALV 0015796



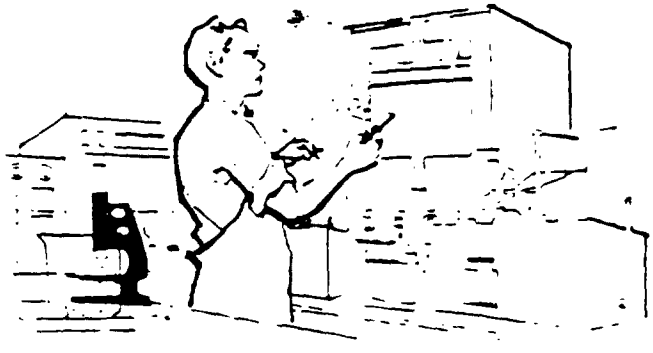
RESEARCH

SAMPLES

Lake Asbestos of Quebec, Ltd., will supply samples for evaluation by consumers of asbestos fibre. When requesting samples, it will be helpful if the intended end use is specified.

BASIC RESEARCH

Basic research on asbestos is conducted at Asarco's Central Research Laboratories, South Plainfield, N. J., in a new wing erected and equipped specially for asbestos research. Here also is conducted applications research directed to answering specific questions or solving specific problems submitted to us by users of LAKE asbestos fibre. Customers are welcome to visit the Central Research Laboratories to observe laboratory or pilot plant projects conducted in their interest.

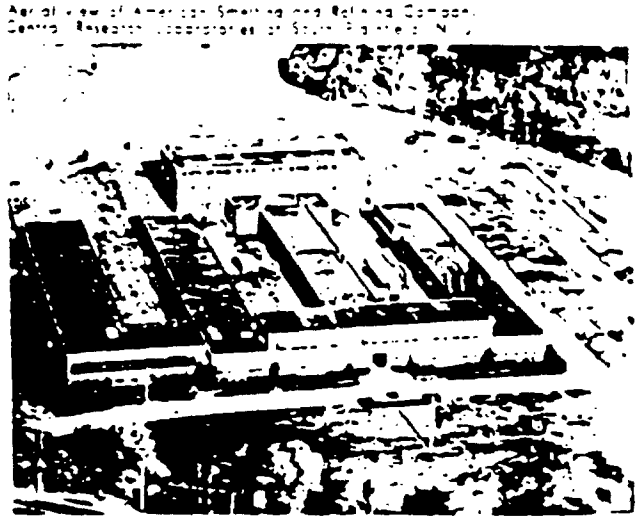


TECHNICAL SERVICE

Our expert knowledge and experience with the basic and applied properties of chrysotile fibre is available to potential consumers and customers.

Many problems are readily solved when this service is combined with the customer's own expert knowledge of his product and problems.

Experienced mining, milling and technical service personnel are available for immediate consultation.



ALV 0015797



QUALITY CONTROL

ASBESTOS remains chemically the same from the depths of the mine to its end use in a finished product, requiring only separation from the rock in which it is found. Quality is measured, therefore, by the physical characteristics of the fibres after processing.

During the early years of production of commercial asbestos in the Province of Quebec, fibre testing and quality control were based primarily on dry screen analysis and visual inspection. As milling methods were improved, the Quebec Standard Testing machine was adopted as the standard method of testing about 30 years ago. From this beginning, the asbestos industry in cooperation with its customers, has developed additional control tests to achieve the following objectives:

1. *Greater uniformity of fibre length and length distribution.*
2. *Closer control of degree of fiberization.*
3. *Closer control of material of fine particle size in the longer grades.*
4. *Closer control of filtration rates.*

This has necessitated the addition of any different types of equipment throughout the mill and the employment of a group of technicians whose only responsibility is to see that the fibre meets the specifications established for it. These tests are made not only before shipment but also at various points in the production process so that the uniformity demanded in modern asbestos products can be achieved. Among the tests used for fibre control are those for:

1. *Fibre length*
2. *Bulk density*
3. *Viscosity*
4. *Air permeability*
5. *Filtration or freeness*
6. *Oil absorption*
7. *Rock and fibre spicules*
8. *Color*
9. *Moisture*
10. *Potential index*
11. *Asbestos-cement fibre test*
12. *Tensile strength*
13. *Magnetic rating*

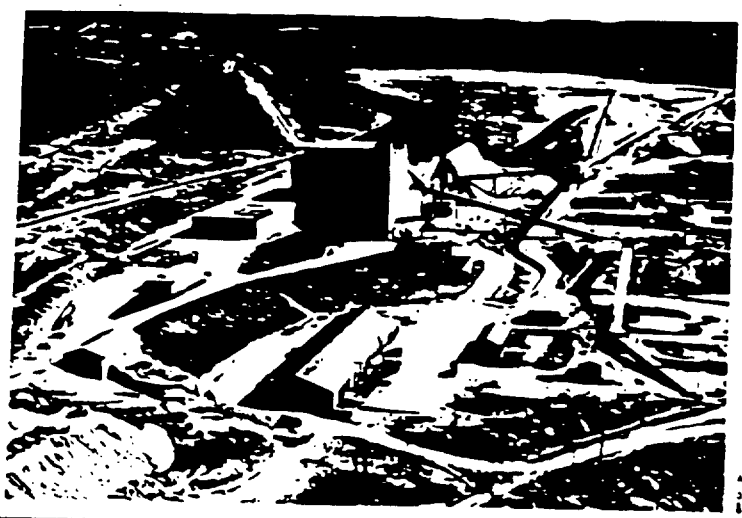
These tests are described in detail in Lake's brochure entitled "Evaluation of Asbestos Fibre."

To sum up, milled chrysotile asbestos generally consists of a mixture of fibres of varying lengths in different stages of fiberization depending upon the amount of processing to which they have been subjected.

The commercial grades as supplied to manufacturers must be carefully controlled with respect to relative fibre length combinations as well as to surface area and other properties.

The aim for the future by most of the industry will be closer control of production and improvements in mining, concentration and milling techniques to develop maximum overall utility value between production at the mines and processing at users' plants. Progress in these efforts will result in a greater utilization of the potential value of the fibre as supplied to the user.

ALV 0015799



LAKE ASBESTOS OF QUEBEC LIMITED

A Subsidiary of

ASARCO

AMERICAN SMELTING AND REFINING COMPANY

Aerial view of Lake Asbestos of Quebec [illegible] Thetford Black Lake district of Canada

AV 0015799