

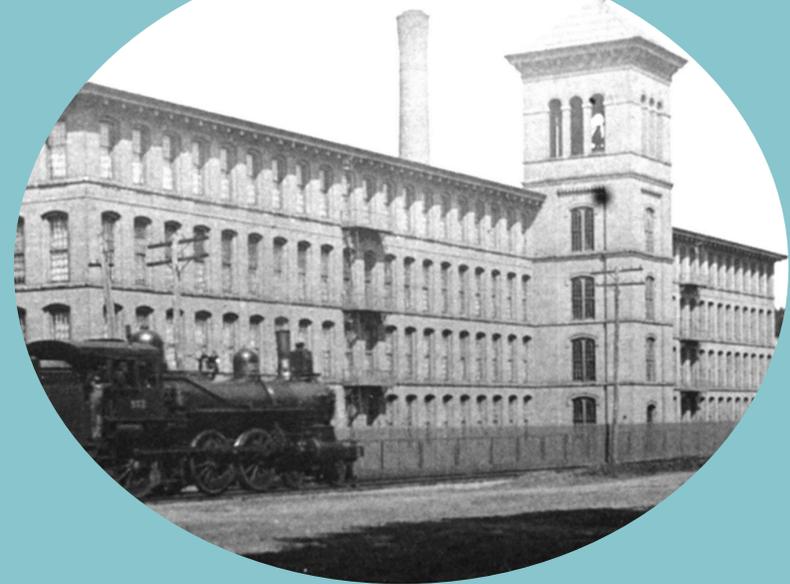
How did innovative products **manufactured** at Ashton Mill improve daily life?

Manufactured - made from raw materials by
hand or machine

Ashton Mill

In 1941 Owens-Corning bought the Ashton Mill building and reopened it as a Fiberglas* manufacturing plant and Research & Development lab. It became one of the earliest, if not the first, plant in New England to manufacture glass fibers. How did the mill make Fiberglas? It all started with marbles.

*Fiberglas is the patented name for fiberglass manufactured by Owens Corning.



Have you ever used **marbles**?
If so, for what purpose?



Answer here.

Have you ever used **marbles**?
If so, for what purpose?



Marble Run



Chinese Checkers



Classic Marbles



Decorating

Manufacturing with Marbles

The Ashton Mill used carefully inspected, clear-glass marbles to make glass fibers. The glass fibers were combined to make thread and yarn. Many products were developed in the Ashton Fiberglas plant that improved transportation, home goods, and space exploration.



Marbles used to make Fiberglas were 2.8 cm. in diameter.

The following Fiberglas items were made at the Ashton Mill by the Owens-Corning manufacturers.

I see...

I notice...

I wonder...



The following Fiberglas items were made at the Ashton Mill by the Owens-Corning manufacturers.

I see...different colors of materials, string, and a patch from the space mission Apollo 16

I notice...some materials look smooth, soft, or rough

I wonder...

What items were made from these materials?



Click on the boxes below to unpack items manufactured by Owens-Corning at Ashton Mill. Discover how the products were used to make everyday items.

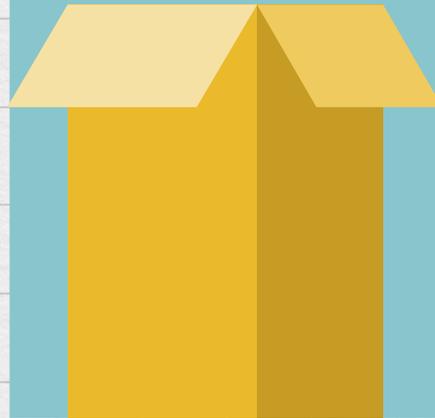
Beta Cloth for
Space Suits,
Badges, &
Emblems



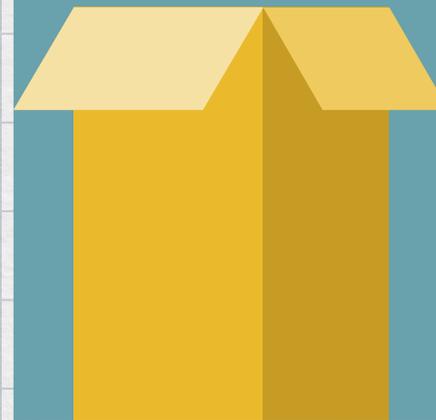
Beta Cloth for
Bedding &
Curtains



Tire Cord

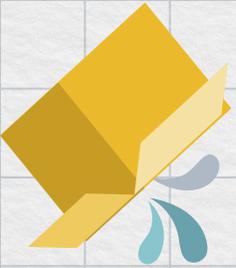


Fiberglass
Reinforced
Plastic



Building
Insulation





Read the article to the right and watch the video below to learn how astronauts used beta cloth.

Beta Cloth for Space Suits, Badges, & Emblems



One of the products developed by Owens-Corning at the Ashton Mill was beta cloth. James J. Dillon of Providence, Rhode Island, invented this strong fabric made of glass fibers. Beta cloth kept the astronauts safe from extremely high temperatures. It also added a fireproof layer of protection to their space suits, badges, and emblems. This material was used during the Apollo Moon missions.

How did beta cloth help the astronauts?
Answer here.

Fiberglas yarn gets around

These tough glass fibers from Owens-Corning form the fabric that protects Apollo space suits from temperature and fire. And they put durability and beauty into earth-based curtains and draperies.

Fiberglas* reinforcements are found in everything from boat hulls to auto tires. In fact, it's estimated that there are more than 33,000 ways Fiber-

glas materials can improve on metals, wood or cloth. And we're moving fast into others.

Our goal—to put more performance, beauty and value in today's new products. We're working on it.

Owens-Corning Fiberglas Corporation, Box 901, Toledo, Ohio 43601.

*Trademark Registered Owens Corning Fiberglas Corporation



SLIDESMANIA.COM



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How did beta cloth help the astronauts?
Beta cloth provided astronauts with fireproof space suits, badges, and emblems on the Apollo missions to the moon.

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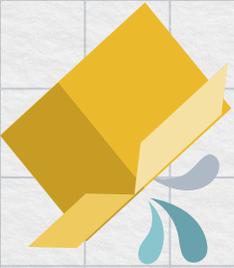
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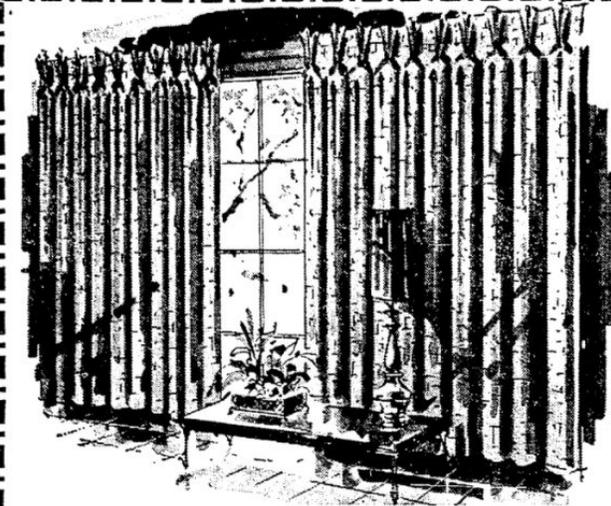
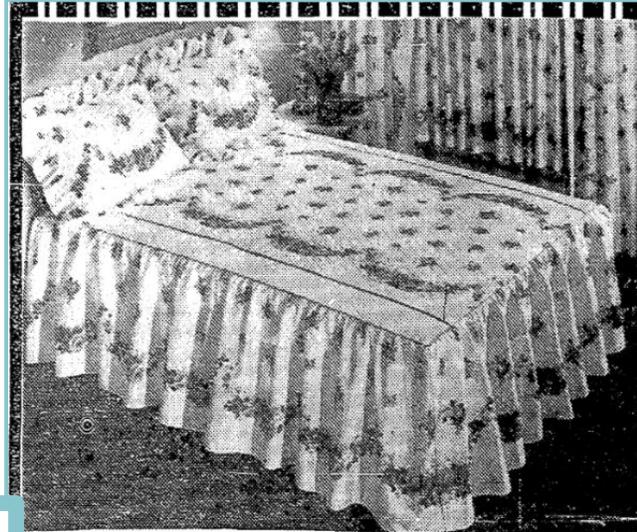
Examine the descriptive advertisement for beta cloth bedding and drapes (curtains) below.

How did beta cloth manufactured at the Ashton Mill improve home goods such as bedding and curtains?

Answer here.



Beta Cloth for Bedding and Curtains



SENSATIONAL PURCHASE!

BETA PRINTED FLORAL
Fiberglas® Bedspreads

• Compare at \$15.99! •

9⁹⁹

TWIN or FULL

Choice of 2 high style prints in rose, gold, lilac and blue. Fiberglas BETA yarn makes it possible, for the first time, to have soft, lustrous glass fiber spreads with the marvelous resistance of Fiberglas to stains and wrinkles. Machine-washable, never any ironing, won't shrink or fade. Fireproof.

MATCHING 63" PINCH-PLEATED DRAPES \$7.99 pr.

SPECIAL! OWENS CORNING

TRIPLE WIDTH

Fiberglas® Draw Drapes

63" length

5⁹⁹ pr.

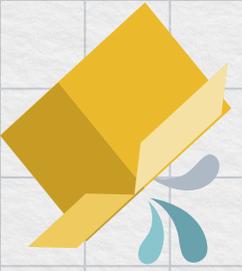
PLEATED WIDTH 140" TO PR.

90" length

7⁹⁹ pr.

Imagine . . . FULL TRIPLE WIDTH at these Discount Prices! Smart brocade weave in white, pink, gold, blue, green, beige olive and melon . . . washes and dries in 7 minutes, never needs ironing. Just 300 pairs . . . hurry.





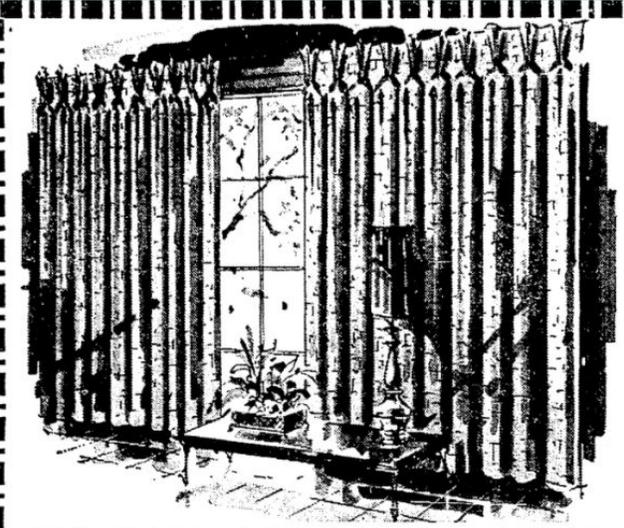
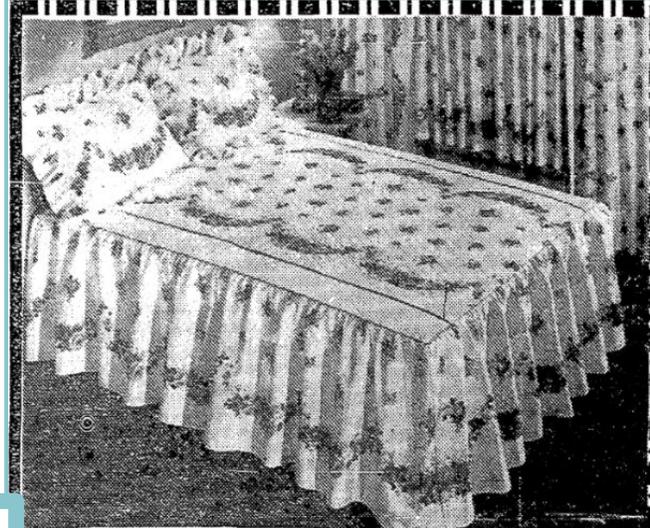
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How did beta cloth manufactured at the Ashton Mill improve home goods such as bedding and curtains?

Beta yarn was soft and made the bedding and curtains free from stains and wrinkles. The fabric also came in many patterns and colors and could be washed in the washing machine without shrinking or fading. The bedding and curtains were fireproof, too.



Beta Cloth for Bedding and Curtains



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Tire Cord



Tire cord is Fiberglas yarn that reinforces the rubber tires used on automobiles. It makes the tires strong and helps them keep their shape. Tire cord is a fireproof material that can withstand high temperatures. This durable material allows the tires to perform better and last longer.

How does the use of tire cord protect automobile tires?

Answer here.





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How does the use of tire cord protect automobile tires?

Tire cord is non flammable. It strengthens car tires and makes them more durable. It also prevents the tires from losing their shape.





Fiberglass Reinforced Plastic

Fiberglass Reinforced Plastic, or FRP, is a substitute for materials made of metal, wood, or cloth. Showers, bathtubs, car parts, surfboards, and boats were made with Fiberglass Reinforced Plastic. The FRP made the items strong, fireproof, and able to withstand extremely hot and cold temperatures.

Highlight the items that were made with Fiberglass Reinforced Plastic.

Boat

Log cabin

Shower

Car parts

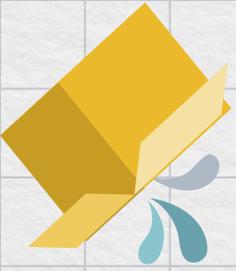
Towel

Bridge

Bathtub

Surfboard





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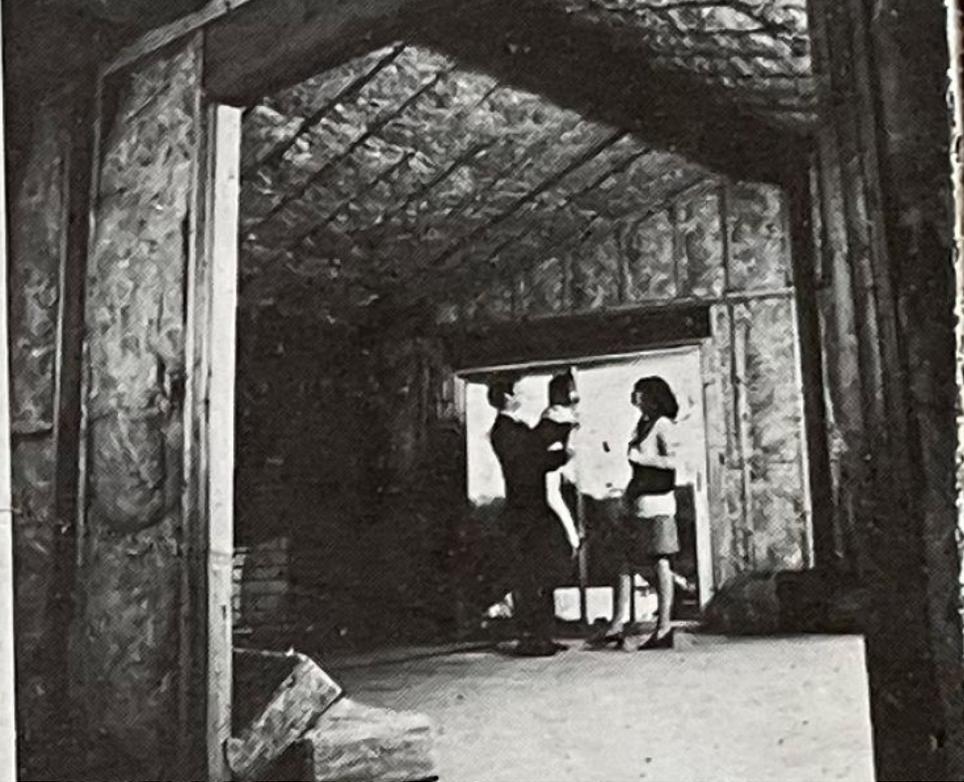
Towel

Bridge

Bathtub

Surfboard





OWENS CORNING FIBERGLASS

3½" x 15" KRAFT

\$11⁹⁹ Roll

6" x 15" ATTIC

\$11⁹⁹ Roll

Providence Journal, CITY edl, 4 Jan. 1980

Insulation

Fiberglas produced at the Ashton Mill was used to keep buildings warm when it was cold outside. This was done with a Fiberglas material called insulation. Fiberglas insulation is still used today. It can also be used to soundproof a room. Fiberglas insulation prevents warmth and noise from escaping through the walls and ceilings of homes and buildings.

What would happen to a home that has not been protected with Fiberglas insulation?





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3½" x 15" KRAFT

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Building Insulation

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How does Fiberglas protect homes and buildings?
Fiberglas insulation keeps homes and buildings warm and soundproof.





- Think about the Fiberglas products manufactured at the Ashton Mill in Rhode Island from 1941 to 1983.

Items include beta cloth, tire cord, Fiberglas reinforced plastic, and insulation.

- Write a paragraph describing how these Fiberglas products were used to improved daily life.



Answer here.



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SAMPLE ANSWER:

Did you know that materials are made of Fiberglas? The Ashton Mill produced different items, such as beta cloth, tire cord, Fiberglas reinforced plastic, and insulation. These products were used to make life safer and easier in many ways. First, beta cloth was used to make fireproof space suits and emblems. These items kept our astronauts safe on their missions. Beta cloth was also used to make curtains and drapes. This was helpful because they were not flammable, and they did not fade, shrink, or wrinkle. Second, the tire cord kept car drivers safe. They were woven into tires to keep their shape and last a long time. Another important product was the Fiberglas reinforced plastic. This made showers, boats, car parts, and more. It was a strong replacement for wood and metal. Lastly, the insulation protected homes and buildings. It kept warmth and sound inside. In conclusion, the Fiberglas products made at Ashton Mill improved daily life in the areas of space travel, transportation, and home goods.

Sources

"Glass Fiber Is Used For Tire Material." *Providence Journal*, 9 June 1964, p. 45.

https://preservation.ri.gov/sites/g/files/xkqbur406/files/pdfs_zips_downloads/national_pdfs/cumberland/cumb_ashton-hd.pdf

Providence Journal, 19 Apr. 1970, p. 62. NewsBank: America's News – Historical and Current, infoweb.newsbank.com/apps/news/document-view?p=AMNEWS&docref=image/v2%3A14728889532D3B69%40EANX-NB-164D95A8FA5405B4%402440696-164C6A62C6A1E92F%4061-164C6A62C6A1E92F%40. Accessed 14 Aug. 2021.

Providence Journal, 22 Dec. 1972, p. 10. NewsBank: America's News – Historical and Current, infoweb.newsbank.com/apps/news/document-view?p=AMNEWS&docref=image/v2%3A14728889532D3B69%40EANX-NB-164E37AAF3EE9AB6%402441674-164DC8A86D42F164%409-164DC8A86D42F164%40. Accessed 14 Aug. 2021.

Providence Journal, 8 Apr. 1973, p. 170. NewsBank: America's News – Historical and Current, infoweb.newsbank.com/apps/news/document-view?p=AMNEWS&docref=image/v2%3A14728889532D3B69%40EANX-NB-165080DD9BBE0CE7%402441781-164DE673A2F6E7A8%40169-164DE673A2F6E7A8%40. Accessed 14 Aug. 2021.

Providence Journal, CITY ed., 4 Jan. 1980, p. 7. NewsBank: America's News – Historical and Current, infoweb.newsbank.com/apps/news/document-view?p=AMNEWS&docref=image/v2%3A14728889532D3B69%40EANX-NB-16508B889C9E07F9%402444243-165086D5860A02EA%406-165086D5860A02EA%40. Accessed 14 Aug. 2021.

Sources

Providence Journal, METROPOLITAN ed., 29 Oct. 1972, p. 308. NewsBank: America's News – Historical and Current, infoweb.newsbank.com/apps/news/document-view?p=AMNEWS&docref=image/v2%3A14728889532D3B69%40EANX-NB-165773B42F59EAF8%402441620-16503A4733219370%40307-16503A4733219370%40. Accessed 14 Aug. 2021.

Providence Journal, WEST BAY ed., 13 July 1969, p. 28. NewsBank: America's News – Historical and Current, infoweb.newsbank.com/apps/news/document-view?p=AMNEWS&docref=image/v2%3A14728889532D3B69%40EANX-NB-15D3C24089F27C2A%402440416-15D380AB4A6CD959%4027-15D380AB4A6CD959%40. Accessed 14 Aug. 2021.

217 Clear-glass Marbles for Fiberglass Textile Manufacture. The Corning Museum of Glass. Corning, New York.

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