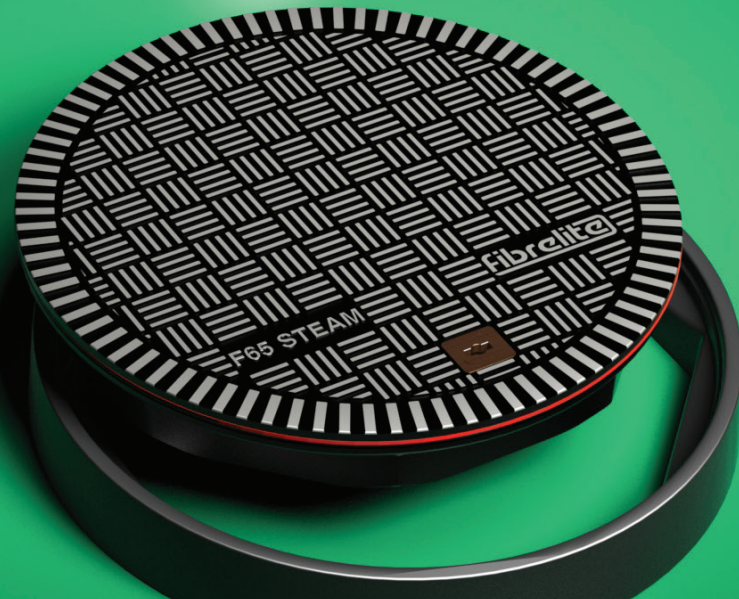
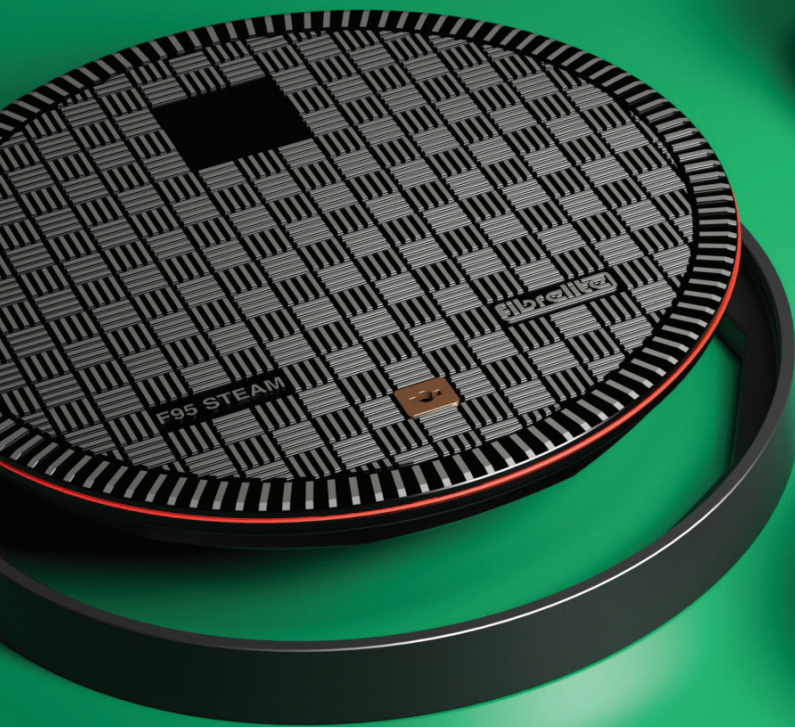
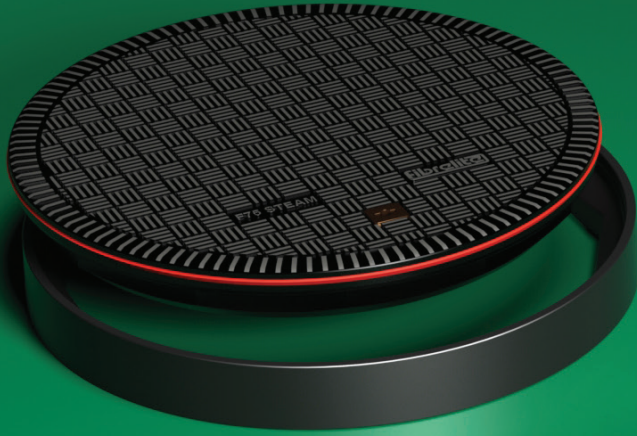


For access to district heating systems  
and geothermal applications

# Composite Steam Manhole Covers



Heat resistant, lightweight and  
corrosion resistant manhole covers  
without compromising on strength



# Fibrelite is the world's leading and largest manufacturer of heat resistant, lightweight, easily removable, anti-slip, corrosion resistant composite manhole covers.

## At the forefront of quality and innovation

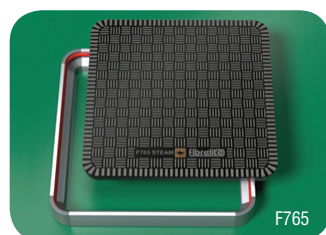
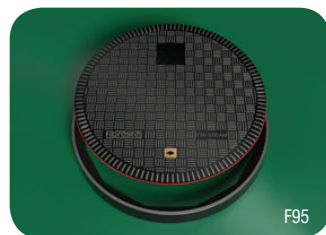
Fiber reinforced composite has three key properties: it is lightweight, durable and very strong. Fibrelite has been at the forefront of composite technology since 1980 and was the very first company to design and manufacture composite manhole covers for any application. The aim was to combat the health and safety issues associated with the removal and replacement of traditional heavy metal covers. Fibrelite has established a global reputation for high quality products and superior after sales service. The company has held the ISO quality standard for over 14 years and continues to lead the way in composite innovation.

Composite covers have always been seen as a high cost alternative to traditional metal products. However, with Fibrelite's technological advances in the manufacturing process and rising metal prices, composite can now compete head to head with cast iron and steel.

## The advantages of fiber reinforced composite manhole covers

Composites are now used for a wide range of applications; from simple products in general construction, to cutting edge uses in the marine and aerospace industries. The key benefit of composite is the strength to weight ratio compared to other materials, however many other benefits are apparent when using composite technology to produce manhole covers.

Traditional metal covers create health and safety hazards for both the general public and company employees.



The thermal gradient properties of composite significantly reduce heat transfer from a steam vault to the surface of the cover. The same properties also mean that the cover will take much longer to heat up when subjected to a simple heat source such as direct sunlight. Both these factors will eliminate the risk of skin burns to the general public. From an operational perspective, the lightweight nature of composite will also facilitate easy removal and replacement of the cover without compromising on strength.

Combine these benefits with the non-corrosion properties and the fact that it does not conduct electricity, composite manhole covers are a viable alternative to traditional metal.

## Why use Fibrelite manhole covers?

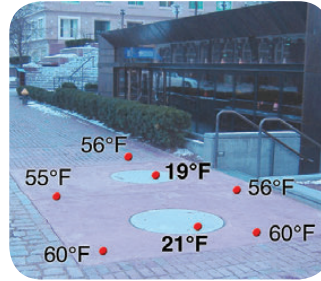
Aside from the general benefits given for composite manhole covers, Fibrelite offers many other significant features. The patented monolithic structure of the covers means that they will not crack or delaminate during usage and the multi-faceted design of the underside of the cover eliminates the danger of the covers spinning out. Water intrusion problems are also eliminated with a proven gasket design that has been tested when the cover is under load.

Covers are available in different load ratings without altering the dimensions of the cover. Equally as important are the anti-skid and anti-wear properties achieved using special materials in the cover surface.

Removal and replacement of the Fibrelite covers is facilitated using a special ergonomically designed lifting aid.



**Health and Safety Friendly**



The excellent thermal properties of composite materials remain cool to the touch despite high surrounding temperatures.



Health & safety friendly anti-slip finish in both wet and dry environments.

**Benefits compared to metal covers:**

- Significant reduction in heat transfer
- Lightweight without compromising strength
- Ergonomic removal and replacement with specially designed handle
- Watertight with proven performance under load
- Produces significantly less condensation on underside of cover
- Anti-static and does not conduct electricity
- Improved anti-skid and anti-wear properties
- Non-corrosive and resistant to sodium chloride
- Eliminates risk of theft due to no scrap/resale value

**Other benefits:**

- Monolithic structure will not crack or delaminate
- Maintenance free
- Multifaceted design that won't spin out
- Our range of covers can be supplied with security locks, please ask for details

**Sealed covers**

Product code	Description
F125	12" (300mm) dia. composite cover (with gasket) and frame
F185	18" (450mm) dia. composite cover (with gasket) and frame
F65	24" (600mm) dia. composite cover (with gasket) and frame
F765	30" (760mm) square composite cover (with gasket) and frame
F75	30" (760mm) dia. composite cover (with gasket) and frame
F95	36" (900mm) dia. composite cover (with gasket) and frame
F105	40" (1020mm) dia. composite cover (with gasket) and frame

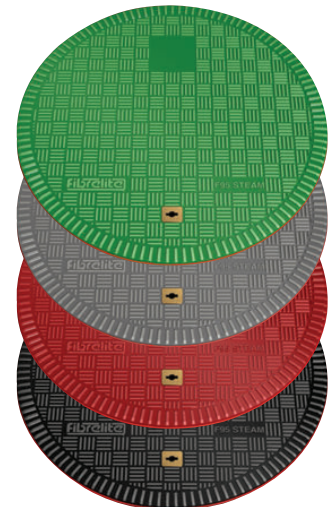
**Vented covers**

Product code	Description
F95-V	36" (900mm) dia. composite cover (with gasket), with venting holes and frame
F105-V	40" (1020mm) dia. composite cover (with gasket), with venting holes and frame

Sizes refer to the clear opening inside the frame.

**Load ratings**

Fibrelite's steam covers are third-party tested to handle loads up to 20,000lbs.



Available in various colors upon request

**Fibrelite provide manhole covers to some of the largest District Energy companies in the US, as well as universities and utility companies**

Excellent  
 thermal  
 properties

**Customer testimonials**

**Citizens Thermal**

*"In 1995, the steam system in Indianapolis pioneered the use of Fibrelite rings and covers over steam vaults. Since then, Fibrelite products have continued to be used with good success in sidewalks and street crosswalks to eliminate the burn hazard associated with metal rings and covers."*

**Cleveland Thermal, LLC**

*"Cleveland Thermal has found Fibrelite steam manhole covers & frames to be an excellent alternative to the standard, cast iron covers. In an urban environment with high pedestrian traffic, Fibrelite steam manhole products offer the greatest reduction in external surface temperature of the cover and have much more aesthetic appeal compared to the cast iron covers that corrode and become unsightly. In addition to the Fibrelite steam manhole cover's surface temperature reduction, they are much lighter reducing both liability and personal injury to workers during handling. I would consider this a fabulous product with exceptional customer service."*

**Duluth Steam Cooperative Association**

*"The Duluth Steam Cooperative Association as an agent for the City of Duluth began installing Fibrelite covers in 2002 and they are now the only manhole (steam vault) cover we use. There are currently 46 covers in the system. They were purchased because of their weight – they reduce the risk of back injuries compared to steel covers and also their insulating abilities. If a steam leak occurs in a vault a person can stand on the cover and not be affected by the heat in the vaults. The covers are installed in street situations and when a proper concrete apron is used we have had no problems with snow plows, buses or trucks popping the covers out."*

**UVM Physical Plant Department**

*"We liked that the covers were light, easy to remove, and were rated for the H2O loading. Our skepticism was around how well the covers in the roadways would hold up to Vermont winter snow plowing, and how well they would seal out surface water. To date we have had NO issues with any aspect of these covers. Since our first 6 covers installed, we have installed 8 others. We are working with Fibrelite to develop plans to retrofit our older vaults in the near future. The Fibrelite covers met an important need on our campus to find a light; durable; temperature, corrosion and abrasion resistant cover that seals out the surface water."*

**Our global sales and support network**

Fibrelite was established in 1980 and currently has three manufacturing plants around the world. Fibrelite products are manufactured in the US, UK and Malaysia. Fibrelite has an established global network of distributors to ensure a local Fibrelite representative is available wherever required. Details of your nearest distributor can be found on our website.

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**Fibrelite's commitment**

Fibrelite ensures the strictest control on raw material quality and manufacturing standards. All products are manufactured in accordance with ISO9001:2008. ISO accreditation applies to the UK manufacturing plant. Fibrelite's are the only covers to be tested and proven to be safe to use by the Ergonomics and Engineering Controls Research Laboratory, University of Cincinnati.



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