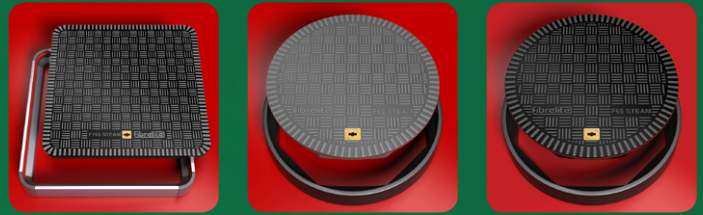
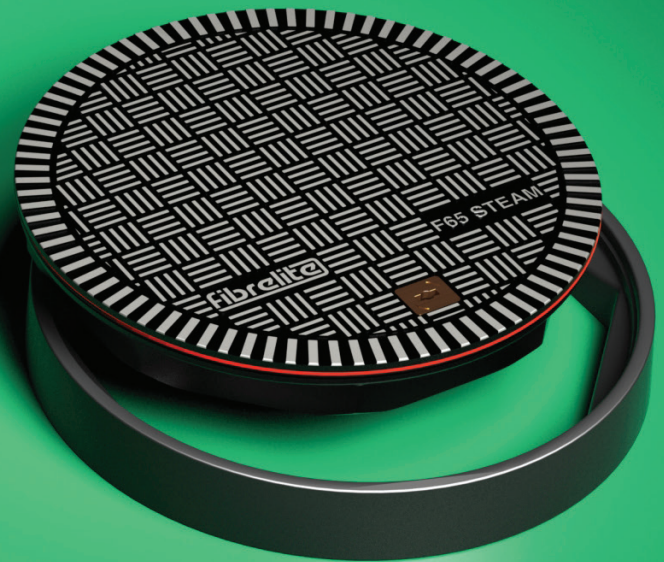
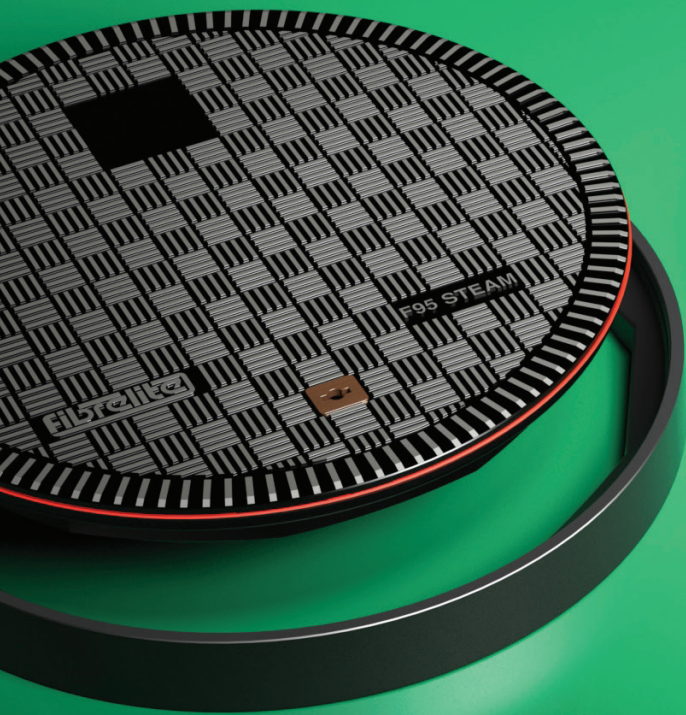
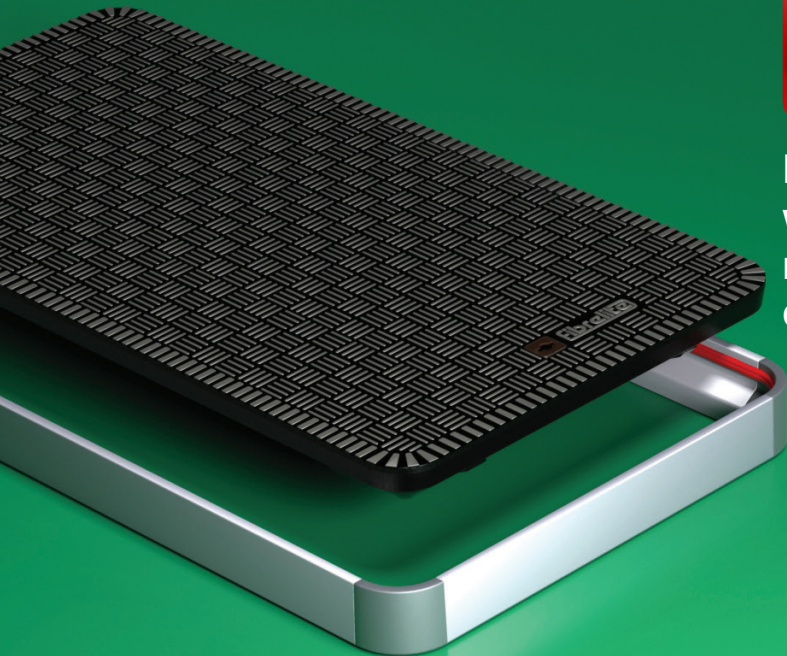


For access to district heating systems and geothermal applications

# Composite Manhole Covers



Heat resistant, lightweight and watertight composite access manhole covers without compromising on strength



**FIBRELITE** 

We've got you covered

# Excellent thermal properties, lightweight, watertight, non-corrosive, strong and durable.

## At the forefront of quality and innovation

Fibrelite has been at the forefront of composite manhole technology since 1980 and the first company in the world to design and manufacture a composite manhole cover for any application. The aim was to combat the health and safety issues associated with the removal and replacement of traditional metal manhole covers.

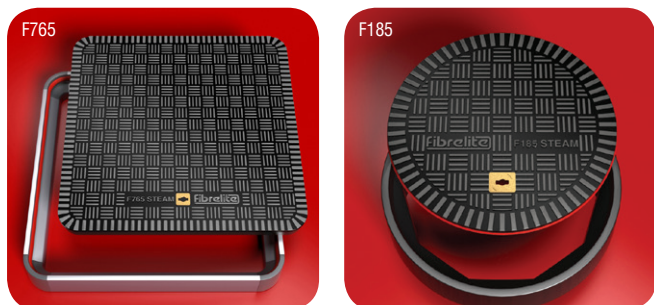
Today, Fibrelite is established as a leading world player in this specialist field, with a global reputation for high quality products and superior after sales service.

The company has held the ISO quality standard for over 14 years and continues to lead the way in composite innovation.

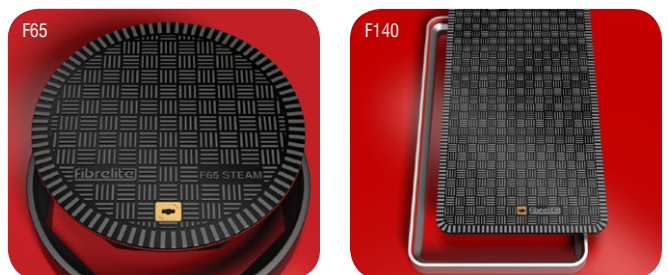
## The advantages of fibre reinforced composite manhole covers

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 facts 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.



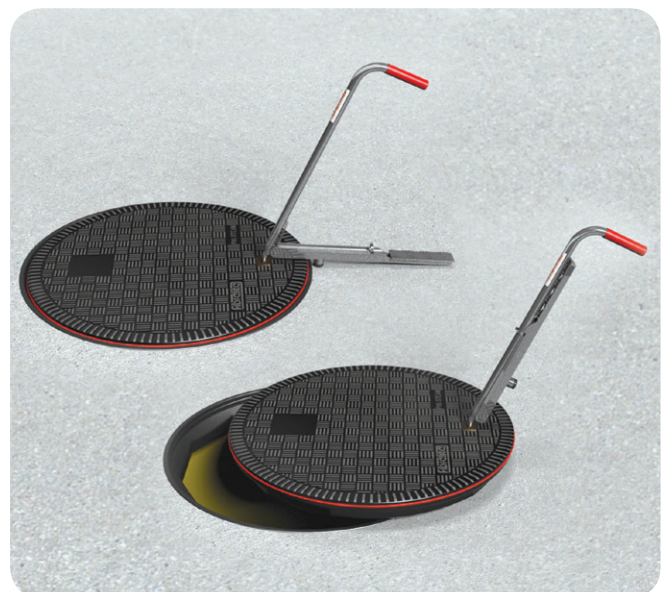
Combine these benefits with the non-corrosion properties and the fact that it does not conduct electricity, composite manhole covers are a viable alternative to traditional metal.



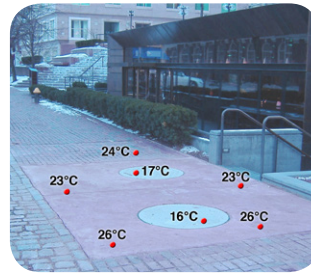
## Why use Fibrelite manhole covers?

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.

The covers exceed EN 124 D400 even when subjected to temperatures up to 200°C and 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.



Company branding available if required



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



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

## Benefits in summary

### 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:

- Exceeds EN 124 D400 load requirements
- Monolithic structure will not crack or delaminate
- Maintenance free
- Multifaceted design that won't spin out

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

### Sealed covers

#### Product code description

F125	300mm dia. flat sealed cover and frame
F45	450mm sq. flat sealed cover and frame
F185	450mm dia. flat sealed cover and frame
F605	600mm sq. flat sealed cover and frame
F65	600mm dia. flat sealed cover and frame
F765	760mm sq. flat sealed cover and frame
F75	760mm dia. flat sealed cover and frame
F96	600mm x 900mm flat sealed cover and frame
F95	900mm dia. flat sealed cover and frame
F900	900mm sq. flat sealed cover and frame
F105	1020mm dia. flat sealed cover and frame
F140	700mm x 1400mm flat sealed cover and frame

### Vented covers

#### Product code description

F95V	900mm dia. flat sealed cover with venting holes and frame
F105V	1020mm dia. flat sealed cover with venting holes and frame

Sizes refer to the clear opening inside the frame.

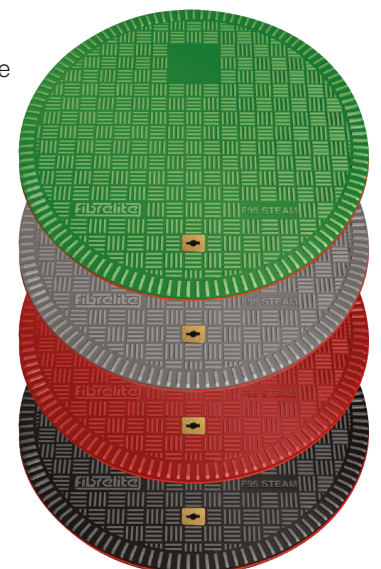
### Load ratings available

Various load rated covers are available upon request.

### Colours available

Covers are available in various colours from the traditional black to red, grey and green.

Further colours are available upon request



## Customer testimonials

### Fred Brasher

THERMAL PROJECT MANAGER

#### 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."*

### Scott Templeton

DISTRIBUTION MANAGER

#### Cleveland Thermal, LLC

*"Cleveland Thermal has found Fibrelite Steam Manhole covers and 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."*

### Gerald (Jerry) Pelofske

MANAGER

#### 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 ploughs, buses or trucks popping the covers out."*

### Installation

Performance of Fibrelite covers is dependant on correct installation and installers must follow our product specific instructions. For unusual installations, please contact our technical department for advice.

### Technical resources

Each system is fully supported with dimensional product drawings and installation instructions. To access this information please contact Fibrelite directly or log on to our website at [www.fibrelite.com](http://www.fibrelite.com)

### Our global sales and support network

Fibrelite was established in 1980 and currently has three manufacturing plants around the world. Our head office and main manufacturing plant is located in England and serves the UK, Europe, Middle East and Africa. The Americas region is serviced by our US plant and sales office based in Connecticut. In 2011, Fibrelite opened a new manufacturing plant in Malaysia to supply products to the Asia Pacific region.

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 or in the section below.

### Fibrelite's commitment

Fibrelite products are manufactured in the UK, US and Malaysia only to ensure 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.

#### Distributor contact details

To enable continuous improvement of our products, the designs and specifications are subject to change without notice.