



## Expertise & Innovation

Stories by Coats



### Protect your connection against rodents.

With 4 billion people now online, working, collaborating and connecting, the push for faster connectivity influences more and more fibre optic cable designs and installations globally. But, having faster connectivity will only go so far if the integrity of the cable is compromised by damage. Fibre optic cables can be exposed to a number of hazardous conditions once installed. One such hazard, no matter if the install is outdoors, underground or in the interior of a building or home, is damage caused by gnawing rodents, like rats or squirrels.

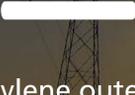
**DID YOU KNOW?**  
 A rodents teeth never stop growing.  
 So, to control the length, they will gnaw on anything in sight, including wires and cables.

Damage from rodents can impact the long-term reliability of both indoor and outdoor installed cables. Rodent protection for optical fibre cables ensures that it is difficult for the animal to gnaw into the cable core. Rodents are usually able to eat away the cable outer sheath. The challenge is to prevent additional penetration. This can be done in several ways. Fibre optic cables have many layers of protection to ensure the optical fibres don't get damaged. One of these layers is added to prevent rodent attacks in the cable core where the optical fibres are.

Rodent damage to communications cables is more than just a nuisance, as it can result in costly repairs and service interruptions.

- In 1987, a squirrel took out the power to a NASDAQ computer center for nearly an hour and half, stopping an estimated 20 million shares from being traded.
- In 2010 – millions of pounds had to be spent on the repair and replacement of 20,000 miles of rail track across the UK, solely due to rats gnawing and damaging cables.

### Anti-rodent solution types:

 <p><b>Woven fibre glass tapes:</b> are a dielectric solution that offer a very good protection because glass sticks to their mouth and irritates them.</p>	 <p><b>Steel tape:</b> reliable protection but can produce electromagnetic interferences</p>	 <p><b>Polyamide 12 outer sheath:</b> used to protect the fibre optic cable from termites, however rodents can still gnaw through.</p>
 <p><b>Polypropylene outer sheath:</b> Effective in protecting fibre optic cables due to its hard surface, not as hard as PA 12 Outer sheath and rodents can still gnaw through.</p>	 <p><b>Chemical repellents:</b> not that effective because the rodents do not ingest what they bite at.</p>	

More popular in recent years is the use of fibre glass yarns for rodent protection. These types of yarns have shown to be effective when it comes to the prevention of small rodent attacks. Fibre glass yarns function differently than other type of rodent protection. The glass yarns create a barrier of protection from rodents that will irritate their jaws and makes them cease their gnawing activities.

By incorporating fibreglass woven tapes into designs, the cable can remain robust, lightweight, and fully engaged for protection. There is no armor like a flexible, woven armor that can provide, strength, stability, non-dielectric properties, all the while keeping those pesky teeth of rodents away from causing destruction.

These tapes can be utilized as a separator, shield, identifier, protector, fire and smoke deterrent, rodent deterrent, and strength member.

[Gotex FG woven tapes](#) are manufactured to protect against rodents and fire. They are mainly applied in cables that are located in atmospheres where the cable is vulnerable to impact by rodents and to temperature changes.

Find out more. Email [marketing@coats.com](mailto:marketing@coats.com)