

BOLTCAPS

TECHNICAL DATA SHEET

1. DESCRIPTION:

Boltcaps are designed to provide protection to the bolted connections in structural steel frames in the event of fire. Manufactured from a polymeric dough moulding compound incorporating a specially formulated additive, Boltcaps can provide up to ninety minutes fire protection.

Produced in the UK in an ISO 9002 accredited factory, consistent high quality and fine tolerances mean fit and finish are of the highest order.

Boltcaps are simply clipped on to bolt heads and nuts, their design allows for several threads to be exposed without problems in fixing.

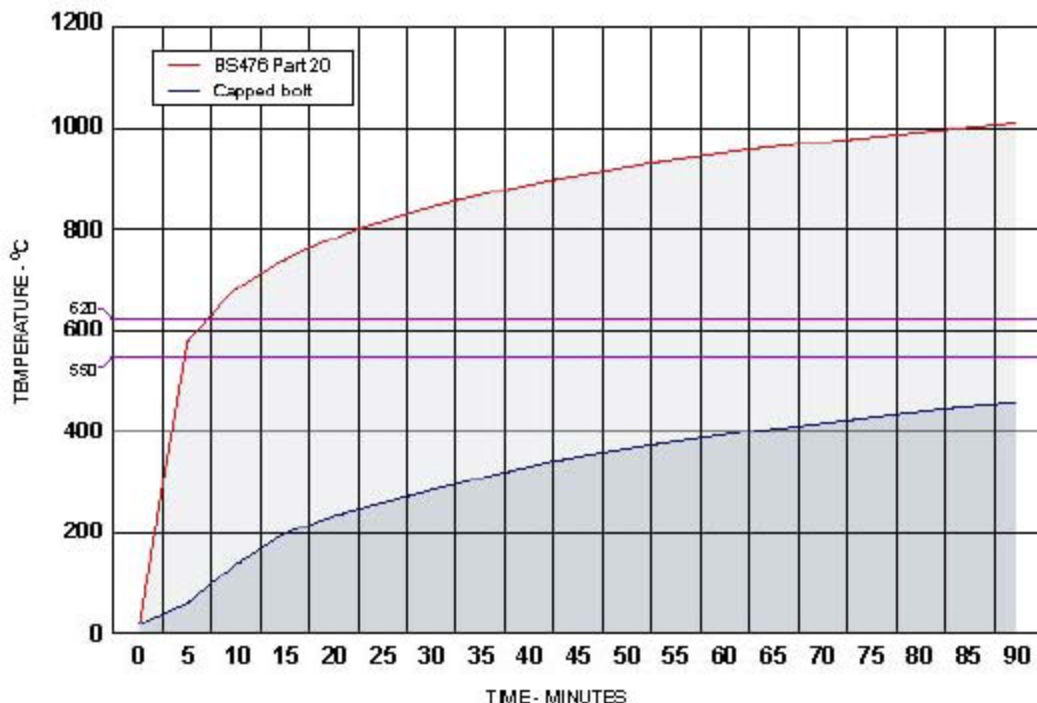
2. PHYSICAL PROPERTIES:

Boltcaps are formed under pressure from a thermoset polymer incorporating a specially developed additive developed from research in the advanced materials industry, that imparts excellent insulating and mechanical properties.

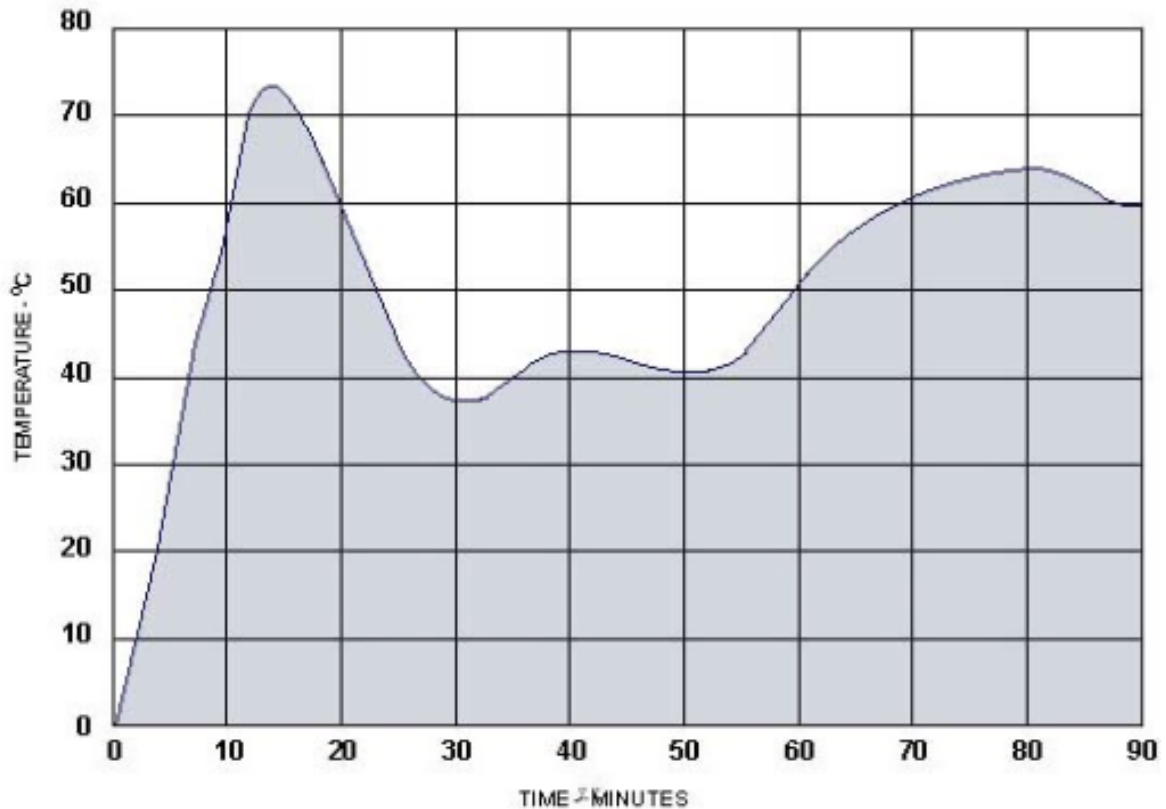
Available in all commonly used structural bolt sizes, they are produced in an ISO 9002 accredited factory guaranteeing precise fit and consistency.

3. FIRE PERFORMANCE:

Tests carried out in furnaces at the Building Research Establishment and one of the UK's leading manufacturers of intumescent coatings show that Boltcaps provide a higher level of protection to the bolted connections than when coated with an intumescent coating.



The bolt protected by boltcaps never reaches the critical failure temperature and



the bolt temperature remains lower than that of the steel by up to 74 degrees

Extract from BRE statement:

"A number of composite steel T sections were tested in the furnace at BRE Garston utilising the BS476:Part 20 heating curve for a duration of ninety minutes. The steel sections were treated with a thin film intumescent coating applied in accordance with the manufacturer's instructions.

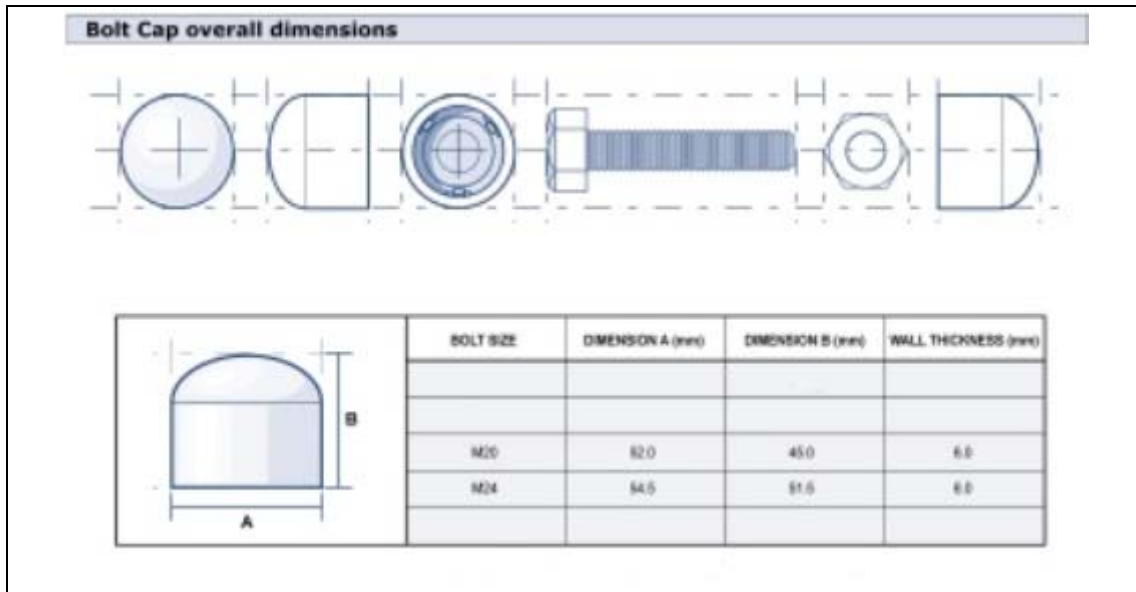
The T sections were constructed from hot rolled I sections fixed with structural steel bolts. A number of bolts were protected with insulating Boltcaps, some with intumescent coating and some left without any form of protection.

The results derived from thermocouples within the bolts on the sections showed that the temperatures attained by the bolts protected with caps were significantly below the temperatures reached by those treated with intumescent coating.

The results of these tests showed that Boltcaps provided a higher level of protection than afforded by the use of intumescent coating and therefore can be considered as an alternative means of protecting the structural bolts."

The tests showed that the temperature within the bolts was maintained at a temperature significantly below that of the intumescent coated bolts and the steel itself, particularly relevant when higher failure temperatures of individual elements are permitted as a result of fire engineering studies.

4. DIMENSIONS:



5. DURABILITY:

Polymer compounds are known for their durability. Independent external exposure tests in the Middle East and accelerated weathering tests in a Prohesion cabinet confirm there is no loss of performance when subject to severe weather conditions.

6. SPECIFICATION:

Boltcaps can be incorporated into specifications wherever fire protection to bolts is required. Boltcaps enable bolts to have guaranteed fire protection installed quickly and economically with the added advantage of excellent, consistent aesthetic appearance. Health & Safety data sheet available on request.

Packaging: Supplied in plastic bags. 100 caps per bag for M20, number of other sizes vary depending on cap size.