

## Promat provides robust fire protection for Bell Common Tunnel

Leading supplier of passive fire protection materials and systems, Promat has supplied its Cafco FENDOLITE<sup>®</sup> MII system for tunnel fire protection as part of the M25 Bell Common Tunnel Refurbishment Project.

The M25 Bell Common Tunnel Refurbishment project is a major maintenance scheme to upgrade the safety equipment in the tunnel to current European Standards and replace mechanical and electrical equipment that was installed when the tunnel was constructed in the early 1980's. Construction commenced on the 24th October 2008 with completion scheduled for March 2010.

Main contractor for the project, Costain Ltd. has recently awarded what is believed to be the largest ever UK sub-contract for a spray applied passive fire protection system based on Cafco FENDOLITE<sup>®</sup> MII - manufactured in the UK by Promat.

The decision to specify the Cafco FENDOLITE<sup>®</sup> MII system was taken by an integrated team consisting of Costain Ltd., Capita Symonds and Mouchel on behalf of the Highways Agency, and following evaluation of a wide selection of materials and systems. A further factor in the decision was the successful application at Bell Common's sister tunnel, the Holmesdale Tunnel, which was protected using Cafco FENDOLITE<sup>®</sup> MII during 2007/8.

The Cafco FENDOLITE<sup>®</sup> MII system has a proven track record in road and rail tunnels as well as in the petrochemical process industries where the product is fully exposed to extremely harsh environments. When applied in conjunction with CAFCO<sup>®</sup> LRTC, the tunnel walls provide a durable, washable and light-reflective surface which results in a safer environment for the travelling public.

Cafco FENDOLITE<sup>®</sup> MII is the key part of an integrated fire protection system and will be applied on more than 60,000m<sup>2</sup> of the tunnel structure including the pre-cast concrete roof beams, roof, secant piled walls and the newly constructed central impact wall within the tunnel, as well as the new portal extensions. Providing a minimum of three hours fire protection, Cafco FENDOLITE<sup>®</sup> MII will limit the temperature of the concrete to levels at which concrete spalling and damage will be prevented, protecting against a progressive collapse of the tunnel.

Fires in tunnel areas are more severe than the types of fires experienced in buildings due to the nature and types of materials (such as petrol, chemicals and gas) that are routinely transported through the tunnel. Flame temperatures exceeding 1350°C can be reached very quickly when a fire is ignited because of the enclosed nature of the tunnel and so materials that are more commonly used in oil and gas refinery complexes are required.

Bell Common and Holmesdale tunnels are on a strategic route from Scotland and the North of England to the Channel Ports leading to Mainland Europe and are the busiest tunnels on the TERN (Trans European Road Network) with an average annual daily traffic count (AADT) of more than 140,000 vehicles. When the refurbishment is completed, they will meet all the minimum safety requirements necessary to meet the recently introduced European Directive (2004/54/EC) enhancing safety levels for the travelling public.

Cafco FENDOLITE<sup>®</sup> MII is a single pack, factory controlled premix based on exfoliated vermiculite and Portland cement. The material is the most widely specified spray applied material with more than 15 million m<sup>2</sup> of structural steel and concrete protected to date. Cafco FENDOLITE<sup>®</sup> MII has a proven track record of success since its introduction into tunnel applications in 1981 and has never failed during a fire.

**END**  
**570 WORDS**

**Editors' Notes**

Promat UK Limited is the UK's only dedicated manufacturer of passive fire protection products and systems. Promat's product portfolio also includes high performance calcium silicate boards Promat SUPALUX<sup>®</sup>, Promat MASTERBOARD<sup>®</sup> and Promat VERMICULUX<sup>®</sup>, as well as the Promat PROMASEAL<sup>®</sup> range of fire-stopping products.

The company is renowned for its technical expertise and draws upon the resources of a worldwide research and development network and over 50 years experience in passive fire protection. Promat is a subsidiary of Etex, the Belgian building materials group present in over 40 countries.

**Issued on behalf of:**

Sean Appleton, Marketing Manager, Promat UK Ltd., The Sterling Centre, Eastern Road, Bracknell, RG12 2TD. Tel: 01344 381350 [sappleton@promat.co.uk](mailto:sappleton@promat.co.uk)  
Website: [www.promat.co.uk](http://www.promat.co.uk)



*Caico FENDOLITE® MII system has been used to provide up to 3 hours fire protection to the M25's Bell Common Tunnel*



Promat UK Limited  
The Sterling Centre, Eastern Road,  
Bracknell, Berkshire RG12 2TD  
Tel: 01344 381300  
Web: [www.promat.co.uk](http://www.promat.co.uk)

an **Etex** GROUP company