



## **Position Paper**

### **Synthetic Fibers Reduce Spalling During Fire**

The addition of short monofilament polypropylene fibers to ready-mix concrete during mixing have the beneficial effect of reducing spalling during a fire. In a very severe fire, such as the recent Britain-to-France Channel Tunnel fire, conventionally reinforced concrete can suffer severe spalling that lead to failure. This failure is due in part to the pore moisture remaining within the concrete boiling explosively – and the steam pressure that is created then causes the severe spalling. The spalling control action of synthetic fibers within the concrete is due to their ability to quickly melt, forming pathways out through the concrete to nearer the surface, allowing the steam pressure to dissipate.



Helping you build smarter and better.™

Nycon, Inc.  
101 Cross Street  
Westerly, RI 02891 USA

Phones: 800 456 9266, 401 596 3955 Fax: 401 596 4242  
Website: [www.nycon.com](http://www.nycon.com) E-mail: [nycon@nycon.com](mailto:nycon@nycon.com)