

KM1™ Fire Barrier Systems

Fire walls, Ceilings and Duct

Passive Fire Protection

KM1™ is a fire barrier system developed to provide fire rated partitions in nuclear facilities.

KM1™ is recognised by the US NRC as the only fire barrier system that does not need the fire barrier to be either partially or totally destroyed to remove it for inspection or cable laying purposes. The same KM1™ panels or sections can be re-used, saving through life costs.

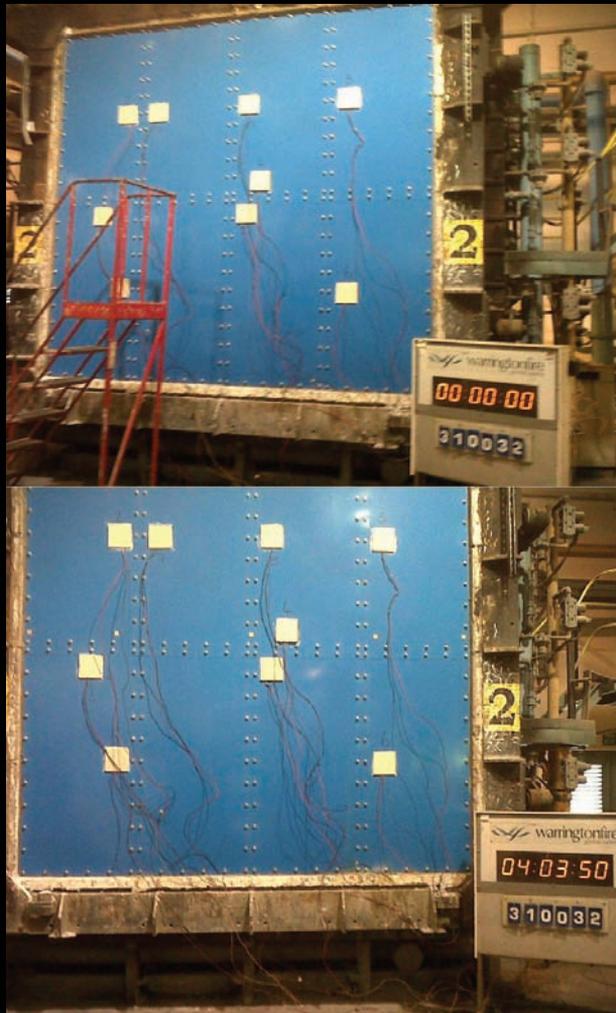
The KM1™ fire barrier partition system has successfully passed fire tests up to 4 hours duration. Fire tests are fully compliant with ASTM E119 and the European EN 1363-1 firecurves.

The modular construction means that the KM1™ fire barrier partition can be easily modified to incorporate access door and service penetrations without the need for major construction work.

The system is based on a patented semi-rigid board, containing a strongly endothermic material which absorbs heat during a fire, creating an effective delay to the heat transfer mechanism in a high temperature fibre matrix.

The KM1™ fire barrier partition system has the same characteristics as the KM1™ fire barrier system for electrical equipment.

The system has been designed for ease of installation. Site installation is carried out using local labour with the minimum of training. The installed system is durable, weather proof and aesthetically appealing.



Fire tests have been at EXOVA Warrington witnessed by KHNP and successfully comply with the criteria of ASTM E119 Other tests include:

Ageing:	ASTM E1027
Combustibility:	ASTM E136
Corrosibility:	US Reg 1.36
Surface spread of flame:	ASTM E84
UV Resistance testing	
Seismic Testing	

KM1™ Fire Barrier Systems Electrical Raceway and Equipment Passive Fire Protection

KM1™ is a fire barrier system developed for the protection of safety critical electrical equipment in the nuclear industry.

KM1™ is recognised by the US NRC as the only fire barrier system that does not need the fire barrier to be either partially or totally destroyed to remove it for inspection or cable laying purposes. The same KM1™ panels or sections can be re-used, saving through life costs.

The system has successfully passed fire tests ranging from 30 minutes to 3 hours in a wide range of boundary specific configurations. Boundary conditions include zero percent cable fill as well as free fall single and grouped cables. Fire tests are fully compliant with NRC Generic Letter 86-10, supplement 1 using both the ASTM E119 and the European EN 1363-1 firecurves. Testing covers the majority of potential site configurations.

KM1™ has one of the industry's lowest ampacity derating factors for a fire barrier system of an equivalent protection duration.

The system is based on a patented semi-rigid board, containing a strongly endothermic material which absorbs heat during a fire, creating an effective delay to the heat transfer mechanism in a high temperature fibre matrix.

The system has been designed for ease of installation. Site installation is carried out using local labour with the minimum of training. The installed system is durable, weather proof and aesthetically appealing.



Fire tests have been UL, NRC and VTT witnessed and successfully comply with the criteria of US NRC Generic letter 86-10, supplement 1, UL1724, ASTM E119 and EN 1363-1

Other tests include:

Ampacity derating: IEEE P848 dr 16

Ageing: ASTM E1027

Combustibility: ASTM E136

Corrosibility: US Reg 1.36

Surface spread of flame: ASTM E84

UV Resistance testing

Seismic Testing

Water Deluge Testing