

Brimico Panelling

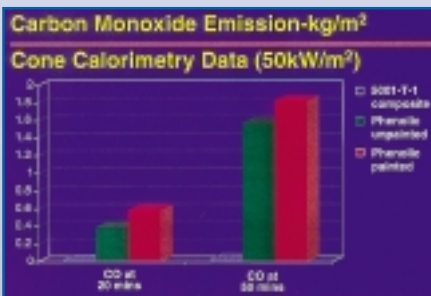
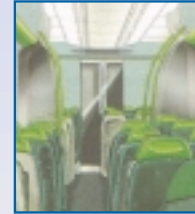
Brimico 300 panelling is currently being used for the production of rail vehicle interior cladding. These may be Bodyside panels as well as ceiling panels. Other applications include Driver's Desk consoles, Standbacks and Draught Partition screens.

Brimico panelling is through coloured to maintain colour during wear. A variety of surface textures are available together with different surface patterns. The panelling can be produced in large sections and is mouldable to virtually any shape.

The composite offers high performance fire specifications for use in railways, tunnels, construction and offshore applications.

These two properties combine to offer the designer a flexible system that can be tailored to meet a wide range of applications and specifications.

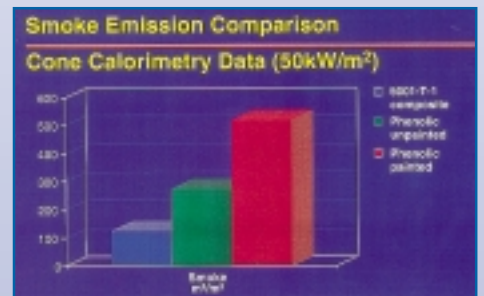
The resin chemistry of the Brimico system combined with the use of aluminium hydroxide is the key to the low CO levels. The results of this are seen in the exceptionally low R value of 1.72 when the system is tested to BS6853: 1999. It is well established that CO is the single most important factor associated with deaths in fires. Comparisons of test results for Brimico composites against phenolic based systems are shown in the tables below.



Cone Calorimetry Results
(Heat Flux 50 kW/m²)

	5001-T-1 (200 g/g GN - 501)		Phenolic 30 vol % glass	
	Unpainted	Painted*	Unpainted	Painted*
Time to ignition (s)	189	130	158	
Total heat release (kJ/m²)	16230	28653	28169	
Total smoke emission (l/m²)	160	224	506	
Carbon dioxide (kg/m²)	1.51	2.67	2.30	
Carbon monoxide (kg/m²)	0.06	0.58	0.87	

*Fire



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Brimico through panelling is fully tested against all major fire and smoke criteria. A summary of these is set out in the table below. The material also offers a high level of electrical insulation and thermal insulation, further details of these properties may be found on the Brimico 300 Arc Barrier data sheet.

Test Standard	Brimico 300	Brimico220	Brimico 150
NFX 70 - 100	R = 1.72		
BS 476 Pt.7 (surface spread of flame)	Class1 (zero spread)	Class 1	
BS 476 Pt.6	l = 6.7, i = 0.0	l = 9.8, i = 0.1	
NFP-92-501	M1	M1	M2
NFF-16-101	F0	F0	
LOI (ASTM D2863)	100%	78%	
DIN 5510			S4/SR2/ST2
3 Metre cube test 60 Deg panel test	Ao(ON) = 3.0 Ao(OFF) = 3.6		
Tensile Strength MPa	32.96	41.06	48.46
Flexural Strength MPa	87.72	102.8	122.6
Impact Strength J	8.27	8.66	10.50

Brimico panelling in a typical vehicle configuration. Also featured tables manufactured by British Mica and seating manufactured by VBK.

