



TECHNICAL BULLETIN NO. 1

PRODUCT: XFLAM® INSULATION

JULY 2003

SITUATION: FIRE PROPOGATION FROM EXPOSED FLAME SOURCE

APPLICATION: EXPOSED XFLAM® INSULATION BOARD WITHOUT SURFACE COATING

ISSUE: Insulation materials generally display physical and mechanical properties not suiting applications where the material is exposed. An insulation product is usually coated or covered by a surface coating able to resist impact and abrasion.

BACKGROUND: As XFLAM® is produced as a rigid non-friable board it is appropriate to measure the resistance to propogation of fire to assess suitability for unlined applications.

For this purpose the methodology given in ASTM E84: 1998 Standard Test Method for Surface Burning Characteristics of Building Materials was applied to XFLAM® insulation board.

Three boards were used in each test, and butted up to one another to form a continuous sample 7.20m long.

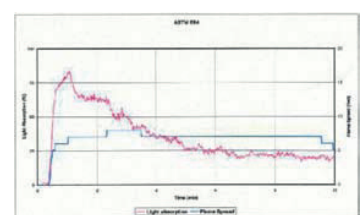
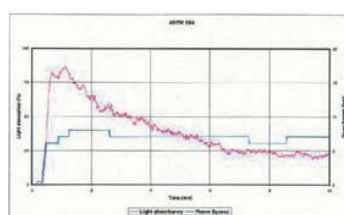
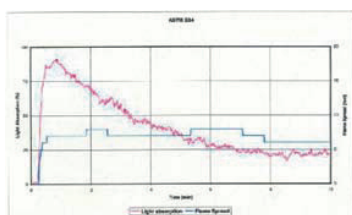
Summary of Test Data

REF	FLAME SPREAD (FEET)	TOTAL FLAME AREA (FT/MIN)	FLAME SPREAD INDEX	LIGHT ABSORPTION	TOTAL SMOKE	SMOKE DEVELOPED INDEX
1	8.0	73.9	40	82.9	345.8	300
2	8.0	75.9	40	91.9	407.6	350
3	8.0	75.5	40	86.9	385.1	300

Depth of Damage (Original sample thickness 110mm)

REF	BOARD 1 START	BOARD 1 END	BOARD 2 START	BOARD 2 END	BOARD 3 START	BOARD 3 END
1	75mm	40mm	35mm	25mm	20mm	< 10mm
2	100mm	70mm	70mm	30mm	30mm	10mm
3	70mm	60mm	60mm	30mm	20mm	< 10mm

Graphs of flame spread and light absorption for each of the three test samples



Approval

Technical Manager
XFLAM Pty Ltd

References:
Test Report ASTM E84 test on Spancore phenolic resin bonded EPS. BRE Test Report number 212407, July 2003