

4 HOUR FIRE RATED SEALANT

FIRE RATED SEALANT

WICKES FIRE RATED SEALANT is a ready mixed water based sealant that dries to form a tough rubbery seal. In a fire the sealant swells and then chars to prevent the passage of smoke, offering up to 4 hours protection in suitable structures.

This product is tested to **BS476: Part 20: 1987**.

Movement accommodation of + or -12.5% of the mean joint width.

INTRODUCTION

A fire resistance test was conducted to assess the ability of four specimens of a linear gap sealing system, to reinstate the fire resistance of a pre-cast, aerated concrete floor construction and five specimens of a linear gap sealing system, to reinstate the fire resistance of a pre-cast, aerated concrete wall construction. The performance of the specimens was assessed against the general principles of **BS476: Part 20: 1987** and the additional guidelines taken from the draft European document referenced prEN 1366-4.

BS476: Part 20: 1987 TEST

The section of wall had overall dimensions of 1000mm long by 1000mm wide by 250mm thick and was provided with five linear joints, referenced specimens E, F, G, H and I. The section of floor had overall dimensions of 1200mm high by 1200mm wide by 250mm thick and was provided with four linear joints, referenced specimens A, B, C and D. The results of the test were as follows:

Test Results	Dimensions (mm)	Integrity (mins)	Insulation (mins)
Seal A Floor	20 x 20	242	59
Seal B Floor	10 x 6	242	242
Seal C Floor	30 x 25	242	101
Seal D Floor	15 x 10	242	25
Seal E Floor	15 x 10	242	28
Seal F Floor	20 x 15	242	51
Seal G Floor	35 x 20	244	71
Seal H Floor	20 x 20	242	64
Seal I Floor	15 x 15	242	42

FIRE RATED EXPANDING FOAM FILLER

FIRE RATED SEALANT

WICKES FIRE RATED EXPANDING FOAM FILLER is an easy to use polyurethane based expanding foam for general construction and home improvement applications. It sets to form a semi-rigid structure which flexes firmly, yet yields to joint and vibration movement. Tested in direct flame contact according to BS476 Part 20 to achieve a fire rating of up to 4 hours dependant upon joint width and size.

INTRODUCTION

A fire resistance test has been conducted to assess the ability of specimens of linear gap sealing systems to reinstate the fire resistance, with respect to the integrity and insulation performance criteria, as defined in BS476: Part 20: 1987.

BS476: Part 20: 1987 TEST:

The test was performed 10 days after the foam cured, using aerated concrete/autoclaved brickwork combinations at gap widths of 45mm, 30mm, 20mm and 15mm and seal depths of 250mm, 220mm, 180mm, 140mm, 120mm and 100mm. The test results relate to the behaviour of the specimens of gap sealing systems under the particular conditions of the test. They are not intended to be the sole criteria for assessing the potential performance of the seals in use, nor do they reflect the actual performance in fires. The results obtained could be expressed as follows:

Test Reference	Gap Width (mm)	Seal Depth (mm)	Orientation	Description	Integrity (mins)	Insulation (mins)
A	45	220	Wall Mounted	PU Foam/mineral fibre core	240	240
B	30	220	Wall Mounted	PU Foam/mineral fibre core	240	240
C	20	180	Wall Mounted	PU Foam	86	86
D	15	220	Wall Mounted	PU Foam	240	240
E	15	120	Wall Mounted	PU Foam	71	69
F	45	250	Floor Mounted	PU Foam/mineral fibre core	240	240
G	30	250	Floor Mounted	PU Foam/mineral fibre core	240	240
H	20	140	Floor Mounted	PU Foam	115	113
I	15	100	Floor Mounted	PU Foam	59	58
J	15	200	Floor Mounted	PU Foam	206	206

The test was discontinued after a period of 240 minutes.