

ASSESSMENT SPECIFICATION

Ref: M1/34562
Date: 10 December 2003

GENERAL

- 1.1 Product name Kooltherm K15 Rainscreen Board
- 1.2 Product type Phenolic insulation board.
- 1.3 Use The product is for use as an insulation behind rainscreen cladding systems on masonry walls.
- The product is used to reduce the thermal transmittance of new or existing walls of dwellings or buildings of similar occupancy, type and condition.
- 1.4 Marketing company Kingspan Insulation Ltd
Pembroke
Leominster
Herefordshire HR6 9LA
- 1.5 Manufacturing locations As for Item 1.4

TECHNICAL SPECIFICATION

- 2.1 Product range A phenolic insulation board
- Length (mm) : 2400
 Width (mm) : 1200
 Thickness (mm) : 20 to 120
 Edge detail : square edge or tongue-and-groove
 Thermal conductivity : 0.022 – 0.024 W/mK
- 2.2 Ancillary items To be confirmed.
- 2.3 Manufacture and production control Details to be confirmed.
- 2.4 Delivery to site, protection and storage Boards are delivered in labelled polythene packs and should be stored clear of the ground and protected from direct sunlight and precipitation. A date of manufacture and instruction leaflet is included in the pack.

STATUTORY REGULATIONS

- 3.1 The Building Regulations 2000 (England and Wales)
- | | | |
|-------------|----|--|
| Requirement | L1 | Conservation of fuel and power in dwellings |
| Requirement | L2 | Conservation of fuel and power in buildings other than dwellings |
| Regulation | 7 | Materials and workmanship |

- 3.2 The Building Standards (Scotland) Regulations 1990 (as amended)
- | | | |
|--------------------|---------------|---|
| Regulation | 10 | Fitness of materials and workmanship |
| Technical Standard | B2.1 and B2.2 | Selection and use of materials, fittings, and components, and workmanship |
| Regulation | 18 | Resistance to condensation |
| Technical Standard | G4.1 | Interstitial condensation |
| | G4.2 | Surface condensation |
| Regulation | 22 | Conservation of fuel and power |
| Technical Standard | J3.1 | Standards for buildings in purpose group 1 |
| | J8.1 | Standards for buildings other than dwellings |
- 3.3 Building Regulations (Northern Ireland) 2000
- | | | |
|------------|----|--|
| Regulation | B2 | Fitness of materials and workmanship |
| | C5 | Condensation |
| | F2 | Conservation of fuel and power – Building fabric |

3.4 Construction (Design and Management) Regulations 1994 (as amended)

3.5 Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

DESIGN DATA

- | | | |
|-----|---------------------------|--|
| 4.1 | Safety | Mechanical resistance and stability:
- bonding/mechanical fixing
Safety in case of fire:
- reaction to fire |
| 4.2 | Habitability | Hygiene, Health and the environment:
- resistance to water vapour transmission
- risk of surface or interstitial condensation
Energy economy and heat retention:
- thermal conductivity of insulation
- U value calculations |
| 4.3 | Durability | Effect of solvents, pollution, chemicals etc
Compatibility with materials in contact |
| 4.4 | Design Requirements | exterior insulation for masonry walls
behaviour in fire
moisture penetration
proximity of hearths, heat production appliances etc
detailing for resisting moisture from the ground
vapour resistance
U values, detailing etc |
| 4.5 | Installation requirements | Boards are bonded/mechanically fixed to outside surface of external walls.
Full details to be confirmed. |
| 4.6 | Maintenance | No factors for assessment |
| 4.7 | Repairs | No factors for assessment |

INSTALLATION

- | | | |
|-----|------------|-----------------------------------|
| 5.1 | Procedures | Details to be confirmed |
| 5.2 | Installers | Tradesman, carpenter, bricklayer. |

08/4582	Issue 1	27 October 2008
08/4582	Amended Issue 1	6 April 2010
08/4582	Issue 2	17 December 2013
14/5134	Issue 1	08 October 2015
14/5134	Amended Issue 1	16 November 2015

30. I don't remember.

14. As far as you were aware, when did Kingspan first contact the BBA in relation to the potential certification by the BBA of K15?

31. I don't remember but have been shown an email dated 23 October 2003 which would appear to indicate the first contact [CH1/x].

15. What was the BBA's understanding as to the use to which K15 would be put within an external cladding system? If different, what was your own understanding?

32. In respect of the BBA's understanding I do not know. However, I have seen copies of the Contract and Assessment Specification [CH1/x] which state '*phenolic insulation board for use with rainscreen cladding systems*' and '*for use as an insulation behind rainscreen cladding systems on masonry walls*' respectively

16. What sections of the Building Regulations and/or the guidance in Approved Document B do you consider would apply to K15?

33. I have no current involvement with Approved Document B and therefore am not in a position to answer this question.

17. In relation to large-scale testing to BS 8414 of external cladding systems, and covering the entire period of your employment at the BBA, what was your own

understanding as to how any unsuccessful tests would be recorded, either by the BRE and/or by the test sponsor?

34. I would not have had knowledge as to how other third-party organisations recorded this information.

18. What was the BBA's policy in relation to requesting records as to unsuccessful tests from Certificate holders or potential Certificate holders? Please also explain the reasoning behind any relevant policy.

35. I don't recall any such policy, but it is down to the Certificate holder / applicant to provide such information to the BBA.

19. What inquiries were made of the BRE at any stage as to testing to BS 8414 carried out on systems incorporating K15?

36. I do not know and I have seen no written correspondence on this.

20. Please set out your own understanding of the meaning of "Class 0". How did you understand this classification in relation to K15? In what way is this classification relevant to K15, if at all?

37. I remember it as a designation for surface spread of flame in Approved Document B, but I have no current involvement with Approved Document B. I don't remember the direct relevance to K15.

21. What did you understand the phrase "low risk" to mean?

38. I don't remember.

22. What was your own understanding of the meaning of the phrase "limited combustibility"?

39. I recall it was related to a definition in Approved Document B.

23. In 2008, what relationship did you understand classifications pursuant to testing to BS 476-6 and/or BS 476-7 to bear to whether or not a product could be categorised as a product "of limited combustibility"?

40. I don't remember.

For all of the matters covered at q 15-23 above, if your understanding has changed at any time, please explain when and how any such change in understanding came about.

Certificate 08/4582 Issue 1

24. The Inquiry is in receipt of a letter from the BBA dated 18 April 2019, a copy of which is attached for your reference. The letter informs the Inquiry that in order to demonstrate a product's classification to Class 0, *"test reports to BS 476-6 and BS 476-7 are required and no such reports are contained on any of the K15 file folders"*.

a. What do you understand to be meant by this?

41. That no reports were found on the available files for K15.

b. Do you agree with this statement?

42. I can only rely on the file contents because I can't recall any further details.

c. Was Kingspan asked by the BBA whether K15 had been tested to BS 476-6 and BS 476-7? If not, why not?

43. I don't remember; however, I have seen letters dated 7 September 2004 and 2 December 2004 [CH1/x] and the contents are self-explanatory where reaction to fire testing was requested. ³

d. If so, when? What was the response?

44. I don't know.

e. At the time of the issue of 08/4582 Issue 1, did the BBA understand K15 never to have been tested to BS 476-6 or BS 476-7?