

rinato™ deck boards

without compromise

Fire test report for rinato™ Classic & Heritage

Annex 2.E Reaction to fire

2.E.0 Introduction

The performance criteria in terms of reaction to fire can be satisfied by either the fire test specified in British Standards terms or the European harmonised fire tests. The reaction to fire properties of element of structure, separating walls, separating floors, cavity barriers, linings, external walls, ceilings, external claddings and escape stairs is expressed in terms of risk throughout the Handbook. Some materials are deemed intrinsically to be non-combustible and therefore do not need to be tested.

2.E.1 Reaction to fire classification

The level of risk is established from the guidance to Standard 2.1 to 2.15. The guidance in the following table will be sufficient to attain the appropriate levels of reaction to fire (in terms of risk) identified throughout this Handbook. The British Standard classifications do not automatically equate with the equivalent classifications in the European Standards column, therefore products cannot typically assume a European class, unless they have been tested accordingly. The designer is free to choose materials or products which satisfy either the British Standard Tests or the Harmonised European Tests.

The performance levels include properties such as the ease of ignition and the rate at which the material gives off heat when burning. This document does not give detailed guidance on other properties such as the generation of smoke, fumes and flaming droplets/particles.

Transitional period - British and European fire tests will co-exist in use until the British Standard classifications are withdrawn.

2.E.2 British Standards and associated specifications

Column 2 of the table sets out the performance criteria for 'reaction to fire'. The materials or components should be tested to the BS 476 series of test standards which are deemed to satisfy the level of risk set throughout this Technical Handbook.

2.E.3 Harmonised European Standards

In accordance with Commission Decision 2000/147/EC of 8/2/2000 implementing Council Directive 89/106/EEC as regards the classification of the reaction to fire of materials and components, column 3 of the table sets out the European performance criteria. Materials or components should be tested to the European Harmonised Tests listed in column 3 of the table which are deemed to satisfy the level of risk set throughout this guidance document. BS EN 13501-1: 2007 provides the reaction to fire classification procedure for all construction products and building elements within the scope of the Construction Products Directive.

TABLE 2.20 REACTION TO FIRE

Risk	British Standards	European Standards (1)
Noncombustible	<p>The material is certified non-combustible according to the test specified in BS 476: Part 4: 1970 (1984) throughout; or</p> <p>The material does not flame or cause any rise in temperature on either the centre (specimen) or furnace thermocouples according to the test specified in BS 476: Part 11: 1982 (1988).</p>	<p>The material has achieved a classification of A1 when tested in accordance with BS EN ISO: 1182: 2002 and BS EN ISO: 1716: 2002 or</p> <p>The material has achieved a classification of A2-s3, d2 when tested in accordance with BS EN: 13823: 2002 and BS EN ISO: 1182: 2002 or BS EN ISO: 1716: 2002, or</p> <p>Products made from only 1 or more of the materials considered as Class A1 without the need for testing, as defined in Commission Decision 96/603/EC of 4 th October 1996 establishing the list of products belonging to Class A1 “No contribution to fire” provided for in the Decision 94/611/EC implementing Article 20 of the Council Directive 89/106/EEC on the construction products. None of the materials contain more than 1.0% by weight or volume (whichever is the lower) of homogeneously distributed organic material.</p>
Low Risk	<p>The surface material (or where it is bonded throughout to a substrate, the surface material combined with the substrate) has a surface of Class 1 and, when tested in accordance with BS 476: Part 6: 1981 or BS 476: Part 6: 1989 has an index of performance (I) not more than 12 and a sub-index (i1) not more than 6.</p>	<p>The material has achieved a classification of B-s3, d2 or better when tested in accordance with BS EN: 13823: 2002 and BS EN ISO: 11925-2: 2002.</p>
Medium Risk	<p>The material of the wall or ceiling when tested to BS 476: Part 7: 1987 (1993), attains a Class 1 surface spread of flame.</p>	<p>The material has achieved a classification of B-s3, d2 or better when tested in accordance with BS EN: 13823: 2002 and BS EN ISO: 11925-2: 2002.</p>
High Risk	<p>The material of the wall or ceiling when tested to BS 476: Part 7: 1987 (1993), attains a Class 2 or Class 3 surface spread of flame.</p>	<p>The material has achieved a classification of C-s3, d2 or better when tested in accordance with BS EN: 13823: 2002 and BS EN ISO: 11925-2: 2002.</p>
Very High Risk	<p>A material which does not attain the recommended performance for high risk.</p>	<p>The material has achieved a classification of D-s3, d2 or better when tested in accordance with BS EN: 13823: 2002 and BS EN ISO: 11925-2: 2002.</p>

ADDITIONAL INFORMATION

When a classification includes “s3, d2” this means that there is no limit set for smoke production and/or flaming droplets/particles.