

Standards and performance classification of windows and doors

This Technical Note describes the structure of British and European Standards for performance of windows and doors. It also describes the performance classes for weathertightness and operation and strength and the appropriate classes for UK applications recommended in BS 6375.

Introduction

British Standards for the performance of windows and doors have largely been replaced by European Standards. The European standards are arranged in a hierarchy with the window and door product standard at the top. Below this is a series of classification standards setting out levels of performance for different characteristics such as watertightness. The final level of standards are test standards which describe how the performance is measured. Because the European standards are intended to be suitable throughout Europe they have a wide variation in the level of performance. Characteristics which require a high level of performance in one country may only require a much lower level of performance in another country due to more benign conditions.

European Standards are published in the UK with a Standard number prefixed by 'BS EN'. They are published in other European countries with 'BS' replaced by the identifying initials of the national standards body of the country involved. Literature relating to products produced in other European countries may refer to the standard of the country of origin but provided that the number of the standard has a prefix consisting of the initials of the national standards body followed by the letters EN, it should have the same requirements as the British version of the standard with the same number and any performance classes quoted should be the same.

BS 6375 has been retained and revised to provide guidance on suitable levels of performance for windows and doors to be used in buildings in the UK.

The scope of BS 6375 was originally limited to windows but it now covers both windows and doors. PAS 23-1 was introduced in 1999 to provide guidance on the assessment of domestic doors with the intention that it would be

withdrawn when a British Standard covering doors was published. The Foreword to BS 6375 2009 states that it was anticipated that PAS 23-1 would be withdrawn as doors are now covered by BS 6375 and the supporting European Standards but this has not yet taken place. PAS 23-1 does contain some tests for robustness of doors that are not included in the European Standards for doors.

There are also window product standards relating to the type of construction material (wood, aluminium, steel and upvc). These standards give requirements relating to the use of the material, methods of construction and durability but refer to BS 6375 for performance of the window.

Window and door product standard

BS EN 14351 describes the performance characteristics which apply to windows and doors, and refers to test and classification Standards relating to these characteristics however not all characteristics will be relevant in a particular situation. BS EN 14351 allows a window or door complying with the Standard to have a particular characteristic classified as 'no performance declared' (npd) and some classification standards have a class 0 for which there is no performance requirement.

BS EN 14351 is divided into Parts relating to the type of use. Part 1 covers windows and external doors which are not required to provide fire resistance. It therefore covers most applications in external facades. Part 2 covers internal doors.

BS 6375

BS 6375 was first published in 1983 to give guidance on specification of weathertightness of windows. Its scope has increased over the years to include doors and other performance