

BRE Test Report

Weathertightness test to BS EN 14351-1:2006 +A1:2010 clauses 4.2, 4.5 and 4.14 on a Duplus Architectural Systems glazed Fixed rooflight

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BRE P105101-1000 Summary of weathertightness test results – Fixed rooflight

The test results for the 2042 mm x 2042 mm specimen of Duplus Architectural Systems Ltd Fixed rooflight are summarised in Table 1 below for tests at a UK exposure category of '2000+'.

BS EN 14351-1:2006 +A1:2010 is the product standard that identifies mandated and non-mandated characteristics for windows and external pedestrian doors for the European market, and it enables products to be CE marked. Designers, specifiers, manufacturers and end users need to identify those characteristics and performance levels appropriate for the selected end use. These will vary from site to site and from country to country.

To avoid uneconomical and inappropriate specifications for the UK market recommended levels of performance have been identified. These performance levels (in this case for weathertightness) are in the National Application Document (NAD) BS 6375-1:2015.

The tests to methods specified in BS 6375-1:2015 are BS EN 1026, 1027 and 12211, they measure the weathertightness of the specimens in terms of air permeability, watertightness and resistance to wind load respectively. Classification of the results is based on BS 6375-1:2015 and BS EN 12207, 12208, 12210.

Air permeability		Watertightness		Resistance to wind loads	
Requirements	Results	Requirement	Results	Requirements	Results
Class 2 at 300 Pa or Classes 3 and 4 at 600 Pa	Met Class 4 for the average of positive and negative test results	Class 7A at 300 Pa	Class 9A at 600 Pa	Class AE2400 P1 = 2400 Pa P2 = 1200 Pa P3 = 3600 Pa	Met all of the requirements for Class AE2400

Table 1. Summary of weathertightness test results

Furthermore, the test results from the specimen of Fixed rooflight tested and described in test report P105101-1000 also apply to the Walk-on versions shown in Figures A4 and A5 in the annex to that report because they have similar sealing arrangement and are at least as stiff as the version tested.

The results also apply to the Fixed rooflight with the glazing method described in P105101-1000, when glazed with 4 mm thick glass, up to a maximum product size of 1200 mm x 1200 mm.