

Institut für Baustoffe, fü Massivbau und Brandschutz

Materialprüfanstalt fe, für das Bauwesen

Classification Report for Fire Resistance

-Translation -

No. of Classification Report:	K-3347/597/10-MPA BS	
Product name:	Glazing system consisting of " 002" glass panes mounted in a frame system (supplier: rp-tec of type "RP1658" and "RP166	'Pilkington Pyroclear 60- an "RP hermetic 50" chnik) based on profiles 60"
Client:	Pilkington Deutschland AG Haydnstraße 19	
	45884 Gelsenkirchen	
Issued on:	01/10/2010	

This classification report consists of 6 pages.

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Materialprüfanstalt (MPA) für das Bauwesen Beethovenstraße 52 D-38106 Braunschweig

Fon +49 (0)531-391-5400 Fax +49 (0)531-391-5900 info@mpa.tu-bs.de www.mpa.tu-bs.de Norddeutsche LB Hannover 106 020 050 bank code 250 500 00 Swift Code: NOLADE 2H VAT ID No. DE183500654 Tax Reg. No.: 14/201/22859 IBAN: DE5825050000106020050

Notified body (0761-CPD) MPA Braunschweig has been approved and notified as a civil engineering supervisory, inspection and certification body. MPA Braunschweig has been ISO/IEC17025 accredited as a testing and calibration laboratory and ISO/IEC17020 accredited as an inspection body.



1 Introduction

This Classification Report for fire resistance defines the classification that is assigned in compliance with the DIN EN 13501-2 : 2008-01 procedure to the structural element "glazing element consisting of "Pilkington **Pyroclear** 60-002" glass panes mounted in an "RP hermetic 50" frame system (supplier: rp-technik) based on profiles of type "RP1658" and "RP1660".

2 Details of the classified element

2.1 Type of function/purpose

The structural element "glazing element consisting of "Pilkington **Pyroclear** 60-002" glass panes mounted in an "RP hermetic 50" frame system (supplier: rp-technik) based on profiles of type "RP1658" and "RP1660", is defined as a glazing element. Its purpose is to resist fire in accordance with the characteristic behaviour of the product set out in section 5 of DIN EN 13501-2 : 2008-01.

2.2 Description

The structural element "glazing element consisting of "Pilkington **Pyroclear** 60-002" glass panes mounted in an "RP hermetic 50" frame system (supplier: rp-technik) based on profiles of type "RP1658" and "RP1660" is described in detail in the Test Report in order to substantiate this classification in accordance with section 3 below.

3 Test Report and test results used to substantiate this classification

The following Test Report is submitted to substantiate this classification



Name of test laboratory	Name of client	Number of Test Report / extended application report	Test method / extended application regulations and data
MPA Braunschweig	Pilkington Deutschland AG Gelsenkirchen	3169/620/10–Bie of 01/10/2010	DIN EN 1364-1 : 1999-10 DIN EN 1363-1 : 1999-10

Table 1: Exposure conditions:

Temperature-time curve:	Standard temperature-time curve (ETK) in accordance with DIN EN 1363-1 : 1999-10
Direction of fire exposure:	Glazing-bead side
Number of fire-exposed faces:	One
Support conditions:	Fixed on three sides; one free vertical side



Table 2: Test results

Mechanical resistance (R)					
Time until the element collapsed (minutes):	-				
Integrity (enclosure) (E)					
Time until the cotton pad ignited (minutes):	-				
Time until sustained flaming occurred (minutes):	≥ 66				
Time until the element failed as a result of the gap criterion (minutes):	≥ 66				
Thermal insulation (I)					
Time after which the mean temperature rise on the non-exposed face exceeds 140 $\ensuremath{\mathfrak{C}}$ (minutes):	_1)				
Time after which the mean temperature rise on the non-exposed face exceeds 180 $^{\circ}$ (minutes):	_1)				

¹⁾ No criterion

²⁾ Did not have to be performed during the test period

4 Classification and field of direct application

4.1 Classification basis

This classification was made in compliance with DIN EN 13501-2 : 2008-01, section 7.5.2.

4.2 Classification

This structural element "glazing element consisting of "Pilkington **Pyroclear** 60-002" glass panes mounted in an "RP hermetic 50" frame system (supplier: rp-technik) based on profiles of type "RP1658" and "RP1660", is classified with regard to the following combination of performance parameters and classes. Other kinds of classification are not permitted.

R	Е	I	w	-	т	-	Μ	С	S	G	К
_	60	-	-	Ι	_	Ι	Ι	_	Ι	Ι	Ι



The E60 classification applies to standard temperature-time curve fire exposure conditions (full fire exposure) in accordance with DIN EN 1363-1 : 1999-10, with the glazing bead side of the element facing the fire.

4.3 Field of direct application

The structural element has the following field of direct application in accordance with DIN EN 13501-2 : 2008-01, in conjunction with DIN EN 1364-1 : 1999-10.

4.3.1 General

The results produced in the fire resistance test may be directly transferred to similar designs which are subjected to one or a number of the modifications listed below, and whose design regarding stiffness and stability continues to comply with the requirements of the relevant design standard. No further modifications are permitted.

- a) Reduced glass pane dimensions
- b) Variation of the glass pane side ratio, provided the largest dimension of the glass pane and its surface remain unchanged
- c) Reduced distance between mullions and/or transoms
- d) Reduced distance between fixing points
- e) Larger frame element dimensions
- f) Screwed glazing supports, since the specimen incorporated click-on glazing support edges
- g) Expansion allowance, if this was not incorporated in the specimen
- h) Modified installation angle of up to 10° from the vertical line

4.3.2 Increased height

An increase in height beyond the tested height is not permitted.

4.3.3 Increased width

An identical design may be increased in width, since the specimen was (at a minimum nominal width of 3 m) tested with a free vertical edge.



4.3.4 Support structure

The test results achieved for a fire-resistant glazing element, which was tested in one of the standard support structures specified in DIN EN 1363-1 : 1999-10, can be applied to a support structure of the same type (fireproof construction with low apparent density) that has a longer fire resistance time.

5 Limitations

5.1 Reservations

The validity of this Classification Report is not limited.

5.2 Warning

This document does not constitute a type approval or product certification.

This document is the translated version of Classification Report K-3347/597/10-MPA BS dated 23/09/2010. The legally binding text is the aforementioned German Classification Report.

Classification Report	Name	Signature ^{a)}	Date:				
Prepared by	K. Biewald	t. Tinacler	01/10/2010				
Reviewed by	A. Rohling	Rolly	01/10/2010				
^{a)} For and on behalf of: Materialprüfanstalt für das Bauwesen, Braunschweig							