

**Classification of Fire
Resistance Performance
in accordance with
EN 13501-2:2023**

K-6056-DMT-DO

Customer	AGC Glass Europe Avenue Jean Monnet 4 1348 Louvain-la-Neuve Belgium
Compiled by	DMT GmbH & Co. KG DMT Test Laboratory for Fire Protection, Test Body for Fire Protection Hermann-Kemper-Straße 12a 49762 Lathen Germany
Number of notified body	2509 (Horizontal notification for: EN 1364-1)
Product	Non-loadbearing glazed partition
Product designation	Pyrobel 42 DGU and Pyrobel 42 TGU in a steel tubes frame
Nr. of the classification report	K-6056-DMT-DO
Issue number	1
Issue date	13.03.2025
Validity	unlimited

TABLE OF CONTENTS	PAGE
1 INTRODUCTION	3
2 DETAILS OF CLASSIFIED PRODUCT	3
2.1 GENERAL	3
2.2 DETAILED PRODUCT DESCRIPTION	3
3 TEST REPORTS / REPORTS OF EXTENDED CLASSIFICATION AND TEST RESULTS FOR VERIFICATION OF CLASSIFICATION	4
3.1 TEST REPORTS	4
3.1.1 Test reports according to EN 1364-1	4
3.1.2 Test results of test reports according to EN 1364-1	5
3.2 REPORTS OF EXTENDED APPLICATION	5
4 CLASSIFICATION AND FIELD OF APPLICATION	6
4.1 REFERENCE OF CLASSIFICATION	6
4.2 CLASSIFICATION	6
4.3 FIELD OF APPLICATION	6
5 LIMITATIONS	7
ANNOTATIONS	8

1 Introduction

This classification report of fire resistance performance defines the classification assigned to a fire protection glazing wall with designation „Pyrobel 42 DGU and Pyrobel 42 TGU in a steel tubes frame“ in accordance with the procedures given in EN 13501-2:2023.

2 Details of classified product

2.1 General

The building component „Pyrobel 42 DGU and Pyrobel 42 TGU in a steel tubes frame“ in combination with fire protection glass panes “Pyrobel 42 DGU“ and “Pyrobel 42 TGU” is defined as a non-loadbearing internal partition assembly.

The building component „Pyrobel 42 DGU and Pyrobel 42 TGU in a steel tubes frame“ is provided for the appropriation as a fire protection non-loadbearing partition. It fulfils specific performance characteristics for fire resistance behaviour according to section 5 of EN 13501-2 when flamed one-sided (section 5.2.2, 5.2.3 and 5.2.4).

The exposed side is the profile's side with the double layer Promatect-H-covering. The unsymmetrical glass panes were tested from the insulation glass pane and the fire protection glass pane.

2.2 Detailed product description

Frame: product: steel tubes, covered with Promatect-H plates

Panes: product: Pyrobel 42 DGU / TGZ

The product „Pyrobel 42 DGU and Pyrobel 42 TGU in a steel tubes frame“ is a non-loadbearing glazed wall with hollow steel frame profiles with glazing beads on one side and fire resistant glass panes of type „Pyrobel 42“.

In the test report the building component is described completely, so the construction is described here only in rough outlines.

The uninsulated profiles have a depth of 100 mm and a width of 40 mm. The connections within a frame were welded. The connections between the frames are screwed with M12 x 40 mm bolts with hexagonal head and M12 hexagonal nuts.

One sided (at the exposed side) a covering with two layers of Promatect-H-plates, thickness each 15 mm, width 60 mm to 120 mm, was done. At the other side Promatect-H-stripes 34 mm resp. 44 mm x 20 mm are used as glazing beads and the profile is covered with one layer of Promatect-H-, thickness 15 mm.

The glass panes are of type „Pyrobel 42 DGU“ and „Pyrobel 42 TGU“. The basis is „Pyrobel 42“ with a total thickness of 42 mm, consisting of floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm / PVB-foil, thickness 0,76 mm / floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm / floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm / intumescent layer, thickness 1,65 mm / floatglas, thickness 3 mm. For „Pyrobel 42 DGU“ an LSG made of floatglas, thickness 4 mm / PVB-foil, thickness 0,76 mm / floatglas, thickness 4 mm is set in front with a spacer of 16 mm. For „Pyrobel 42 TGU“ with a space of 10 mm a Floatglass, thickness 6 mm is set in front, than the LSG made of floatglas, thickness 4 mm / PVB-foil, thickness 0,76 mm / floatglas, thickness 4 mm, also with an air space of 10 mm.

The maximum tested glass pane size was (W x H) 2000 mm x 931 mm resp. 748 mm x 1918 mm.

Between glass and Promatect-H glazing tape „Superwool X607“, manufacturer Odice, dimensions 20 mm x 5 mm, above sealing with silicone „Firestop 700“, manufacturer Dow.

The building component is described completely in the test report and the report of extended application, which are referred to in section 3.1 for verification of classification.

3 Test reports / reports of extended classification and test results for verification of classification

3.1 Test reports

3.1.1 Test reports according to EN 1364-1

No.	Name of Laboratory No. of Notified Body	Name of sponsor	Test report no. dated	Test method
F1	DMT GmbH & Co KG 2509	AGC Glass Europe	DMT-DO-61-269 06.09.2023	EN 1364-1: 2015 EN 1363-1: 2020

3.1.2 Test results of test reports according to EN 1364-1

Test report number Brief description of the test specimen	Parameter	Results [min]
(F1) DMT-DO-61-269 Non-loadbearing assembly made of covered steel tube profiles with a thickness of 100 mm, with five pieces of fire protection glass panes "Pyrobel 42 DGU" and "Pyrobel 42 TGU" with an element size of 2940 mm x 2960 mm and a maximum glass pane size of 2000 mm x 931 mm resp. 748 mm x 1918 mm. Exposed side double cover side	Integrity (cotton pad)	100
	Integrity (gap gauge)	100
	Integrity (sustained flaming)	100
	Insulation I	100
	Radiation	100

3.2 Reports of extended application

Nr.	Test report no. dated	Name of Test Body Notified Body	Name of sponsor	Standard of extended application
E1	E-6116-DMT-DO 13.03.2025	DMT GmbH & Co. KG 2509	AGC Glass Europe	EN 15254-4: 2018

4 Classification and field of application

4.1 Reference of classification

This classification was carried out in accordance with EN 13501-2:2023, section 7.5.2.

4.2 Classification

The fire protection glazing wall of type „Pyrobel 42 DGU and Pyrobel 42 TGU in a steel tubes frame“ of AGC Glass Europe with glass panes “Pyrobel 42 DGU” and “Pyrobel 42 TGU”, may be classified according to the following combinations of performance parameters and classes as appropriate.

R	E	I	W		t	t	–	M	S	–	C	IncSlow	sn	ef	r
---	---	---	---	--	---	---	---	---	---	---	---	---------	----	----	---

E 90, EI 90, EW 90

The exposed side is the side of the double layer Promatect-H-cover of the frame.

4.3 Field of application

The scope of the classified component with direct and extended field of application is given in the test report and the report of extended application.

5 Limitations

This classification document does not represent type approval or certification of the product.

Lathen, 13.03.2025

		
Kruse		Kanjahn
(deputy head of test lab)		(case worker)

Annotations

Documents without stamp and sign have no validity. The cover page and the sign page of this document are signed with the stamp.

This classification report has to be used and reproduced unchanged and entirely only. Extracts or abridgements are subjected to a written permission by DMT GmbH & Co. KG, Test Body for Fire Protection.

This classification report was delivered in digital format.

A publication requires the written approval of DMT GmbH & Co. KG, Test Body for Fire Protection.

Translations of this classification report have to include the annotation „Translation of the german original version not proven by DMT GmbH & Co. KG, Test Body for Fire Protection“. In cases of doubt the german original version of the report is valid.

NB numbers of the inspection bodies are given in the lists for the reports; information on the complete scope of notification of the respective body can be found in the NANDO database.