MINISTERIO
DE INDUSTRIA, TURISMO
Y COMERCIO

MINISTRY OF INDUSTRY, TOURISM AND TRADE
LICOF: Official Laboratory for Fire Testing
R.D. 1614/1985 on 1st of August
M.O. on 21st of May of 1991

AFITI LICOF
Centre for Fire Testing and Research
Association for the Promotion of Research and Fire Safety Technology

Classification Report

Fire Resistance Laboratory

ilac-MRA ENAC ENSAYOS Nº 41/LE104

APPLICANT:

COGNIS GMBH

CLASSIFICATION OF FIRE RESISTANCE ACCORDING TO STANDARD UNE-EN 13501-2:2009+A1:2010

- Element: **Cables penetration seals.**
  - Manufacturer: COGNIS GMBH
  - Reference: "KBS® Panel Seal ABL"

CLASSIFICATION OF FIRE RESISTANCE ACCORDING TO UNE-EN 13501-2:2009+A1:2010

Applicant: **COGNIS GMBH**
Rheinpromenade 1
D-40789 - Monheim am Rhein
Germany

Issuing Laboratory: **AFITI-LICOF**
Notified Body nr.: 1168

Building element: **Cables penetration seals**
Reference: "KBS® Panel Seal ABL"

Classification Report nr.: **7994/09-24 (English Version)**
Date of issue: 18th-Apr-11

Report Contents

DOCUMENT SIGNED DIGITALLY

This Classification Report nº 7994/09-24 English Version supersdes the Classification Report nº 7994/09-11 English Version.

This report is a translation of the Spanish Classification Report dated 18-apr-11. In case of doubt, the Spanish version of the Classification Report prevails.

1.- AIM OF THE REPORT

This Classification Report defines the classification of Fire Resistance assigned to the cables penetration seals, designated by the applicant as "KBS® Panel Seal ABL", in accordance with the procedures given in the Standard UNE-EN 13501-2:2009+A1:2010 *"Fire classification of construction products and building elements.Part 2: Classification using data from fire resistance tests, excluding ventilation services"*

2.- DETAILS OF THE CLASSIFIED ELEMENT

2.1.- TYPE OF FUNCTION

The element "KBS® Panel Seal ABL" is defined as "cables penetration seal". Its function is to resist the fire with regard to the characteristics of fire behaviour given in the clause 5 of the UNE-EN 13501-2:2009+A1:2010 Standard.

2.2.- DESCRIPTION

The element is fully described in the test report in support this classification. This test report is identified in clause 3 of the present classification report.

3.- TEST REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION.

Reports

Issuing laboratory	Applicant	Report	Test method
AFITI-LICOF Camino del Estrechillo, 8 28500 - Arganda del Rey (Madrid) Notified Body nr.: **1168**	**COGNIS GMBH** Rheinpromenade 1 D-40789 - Monheim am Rhein Germany	Nr.: **7994/09-22** D. of issue: 18th-Apr-11 Test date: 08th-Apr-09	UNE-EN 1366-3:2005

Exposure conditions

Temperature Curve/Time:	Standard
Direction of exposure:	Symmetric
Orientation of support construction:	Vertical
Nr. of exposed sides:	One

DOCUMENT SIGNED DIGITALLY

Test results

		Specimen nr. 7994B
Integrity (E)	.....	**181 minutes(s)**
Cotton pad	.....	181 minutes(s)
Gap gauges ∅ 6 mm	.....	181 minutes(s)
Gap gauges ∅ 25 mm	.....	181 minutes(s)
Sustained flames > 10 s	.....	181 minutes(s)
Thermal Insulation (I)	.....	**91 minutes**
Maximum temperature	.....	91 minutes

(S): Test stopped by mutual agreement with the applicant.

4.- CLASSIFICATION AND FIELD OF APPLICATION.

4.1.- CLASSIFICATION STANDARD

This classification has been carried out in accordance with Clause 7.5.8.of UNE-EN 13501-2:2009+A1:2010 standard.

4.2.- CLASSIFICATION

The element, "KBS® Panel Seal ABL"is classified according to the following combinations of performance parameters and classes as appropriate.
Other classifications are not admitted.

Fire Resistance Classification	**EI 90 , E 180**

4.3.- FIELD OF APPLICATION

According to the provisions of the chapter 13 of the Standard UNE-EN 1366-3:2005, the element "KBS® Panel Seal ABL" has the following field of application. The classification obtained is still valid for the following variations in the characteristics of the specimen without the need for further testing due to such modifications.

DOCUMENT SIGNED DIGITALLY

Characteristic	Permitted variation	Reference value (1)
– Geometry of the seal	The minimum gaps (a_1, a_2, a_3,, a_4, a_5, h_1 and h_2) used in the test will be used in the practice.	*a_1= 85 mm a_2= 110 mm* *a_3= 110 mm; a_4=55 mm* *a_5= 245 mm; h_1= 300 mm* *h_2= 255 mm*
– Cables	The diameter of every cable unit and/or the number of cables per bunch can be reduced, so that the total diameter of the bunch or of any cable unit is not higher than the tested one.	*Standard configuration of cables according to the provisions of the table B.1 of the annex B of the standard UNE-EN 1366-3:2005.*
	Results valid for all types of insulated cables with copper or aluminium conductors, fibre optic cables and bundled communication cables.	*Bunch of cables:* *20 cables of the type "d"* *20 cables of the type "e"* *48 cables of the type "f"*
– Supports	The supports of the trays cannot pass through the seal.	*****
	The number and distance of the supports shall be equal to or lower than those tested.	*Two supports situated on each side of the partition at a distance of 250 and 550 mm each.*
– Tray	Valid for all type of steel cable trays.	*****
– Penetration seal	Valid for any penetration seal size equal to or smaller than that tested,provided the total amount of cross sections of the cables (core and insulation) does not exceed 60 % of the penetration..	*Penetration seal size:* *800 mm x 800 mm*
– Supporting construction	System valid for penetrations on vertical elements (walls).	*****
	Result valid for masonry separating elements of a thickness and density equal to or greater than that of the supporting construction used in the test.	*Vertical:* *Thickness: 150 mm* *Density: 650 kg/m^3*

(1) Reference values of the specimen tested from which the indicated variations can be obtained. The reference values which are not included in this chapter are included in the Technical Report of the Test Report on which this classification is based.

DOCUMENT SIGNED DIGITALLY

5.- LIMITATIONS

This report does not represent type approval or certification of the element.

Arganda del Rey, 18th of April of 2011

Signed: Diana Luengo Rojo
Technical Director of LICOF

Signed: José Ramón Vidal Bachiller
Technical Director of
Fire Resistance Laboratory

AFITI LICOF Centre for Fire Testing and Research

Association for the Promotion of Research and Fire Safety Technology

MINISTERIO DE INDUSTRIA, TURISMO Y COMERCIO

MINISTRY OF INDUSTRY, TOURISM AND TRADE

Tomás de la Rosa Sánchez, General Manager of AFITI declares:

- That AFITI (Association for the Promotion of Research and Fire Safety Technology), is a non profit-making association and was declared Association of Public Utility by the Spanish Cabinet on 27th January 1995.
- That the ownership of LICOF (Centre for Fire Testing and Research) is of Ministry of Industry, Tourism and Trade, by R.D. 1614/85 and O.M. on 21st may 1991, corresponding, by agreement, the management to AFITI.
- That AFITI is member of the European Economic Interest Grouping EFECTIS.
- That LICOF is the Fire Testing and Research Center corresponding to the Technical Unit of Test accredited by the National Accreditation Body (ENAC), to act under files Nr. 41/LE104 and Nr. 41/LE204.

Signed: Tomás de la Rosa Sánchez
General Manager

HEAD OFFICE & LABORATORIES Camino del Estrechillo, 8
E-28500 Arganda del Rey - Madrid (Spain)

CENTRAL OFFICE & LABORATORIES C/ Río Estenilla, s/n - P.I. Sta. Mª de Benquerencia
E-45007 Toledo (Spain)

+34 902 112 942
+34 901 706 587
licof@afiti.com
www.afiti.com

DOCUMENT SIGNED DIGITALLY