

CERTIFICATE OF COMPLIANCE

Certificate Number 20140902-R27182
Report Reference R27182-20130522
Issue Date 2014-SEPTEMBER-02

Issued to: KRONA KOBLENZ SPA
VIA PIANE 90
47853 CORIANO RN ITALY


This is to certify that representative samples of DOOR HINGES
K5080, K6200, k6700, K7000, K7080 and K7120, 3-axis adjustable hinges.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

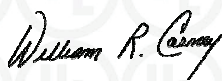
Standard(s) for Safety: ANSI/UL 10C - Positive Pressure Fire Tests of Door Assemblies

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Listing Mark should be considered as being covered by UL's Listing and Follow-Up Service.

The UL Listing Mark generally includes the following elements: the symbol UL in a circle:  with the word "LISTED"; a control number (may be alphanumeric) assigned by UL; and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



William R. Carney, Director, North American Certification Programs
UL LLC

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Standard(s) for Safety: ULC-S104 - Standard Method for Fire Tests of Door Assemblies

Additional Information: See the ULC Online Certification Directory at www.ulc.ca for additional information

Only those products bearing the ULC Listing Mark should be considered as being covered by ULC's Listing and Follow-Up Service.

The ULC Listing Mark generally includes the following elements: the symbol ULC in a circle:  with the word "LISTED"; a control number (may be alphanumeric) assigned by ULC; and the product category name (product identifier) as indicated in the appropriate ULC Directory.

To confirm the status, validate the above information via the online directory.

Look for the ULC Listing Mark on the product.



Martin Oughton, President & General Manager
UNDERWRITERS LABORATORIES OF CANADA INC.

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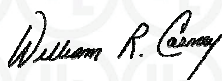
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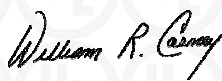
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PRÜFBERICHT

Prüfbericht Nr.: 14021901-2

Datum: 29.10.2014

Sachbearbeiter: Dipl.-Ing. U. Stöckl / hoee

DW: 872

AUFTRAGGEBER:

Krona Koblenz S.p.A.
Via Piane 90
I-47853 Coriano (RN)

PRÜFGEGENSTAND:

Zwei stumpf einschlagende einflügelige Holzdrehtüren innerhalb eines Holzpfostenstocks montiert in einer massiven Normtragkonstruktion mit geringer Rohdichte mit 3 Stück verdeckt liegenden Türbändern der Serie KUBICA
Type „K 6200“

PRÜFGRUNDLAGEN:

ÖNORM EN 1634, Teil 1
ÖNORM EN 1363, Teil 1
ÖNORM EN 14600
EAD 020001-00-0405

BRANDPRÜFUNG:

12. Juni 2014

BEFLAMMTE SEITE:

Öffnungsfläche (Bandseite)
Schließfläche (Gegenbandseite)

PRÜFUNGSDAUER:

36 Minuten und 08 Sekunden

PRÜFERGEBNISSE:

Verdeckt liegende Türbänder der Serie KUBICA geeignet für den Einbau in Feuerschutzabschlüssen (siehe auch Punkt 12 und 13)

AUSFÜHRENDER:

Dipl.-Ing. (FH) Ulrich STÖCKL, MSc.

Dieser Prüfbericht enthält:

11 Textseiten und 11 Beilagen

Beilagen:

A: Fotodokumentation (6 Bilder, 3 Seiten)

B: Versuchsprotokoll (6 Seiten)

C: Montageanleitung (2 Seiten)

CERTIFICATION DE RÉSISTANCE AU FEU

DEMANDEUR:

KRONA KOBLENZ S.p.A.

Via O. Romero, 1
47853 - Coriano (RN) - Italy

DÉNOMINATION DU MATÉRIEL :

"Cerniera invisibile e regolabile 3D Kubica Modello K 6300"

NORME DE RÉFÉRENCE:

UNI EN 1634-2 Ed. 2009

Résistance au feu et étanchéité à la fumée des blocs-portes, blocs-fermetures et ouvrants de fenêtre, y compris leurs éléments de quincailleries
Part 2: caractérisation de la résistance au feu pour les éléments de quincailleries

Sur la base de l'essai effectué, la durée de résistance au feu du matériel est

Cerniera invisibile e regolabile 3D Kubica Modello K 6300 (Ref. Lab. 1211/11)

- Etanchéité: 38 minutes
- Isolation thermique: 38 minutes
- Résistance à la charge: 38 minutes

Les résultats de cet essai concernent uniquement le produit fabriqué et installé conformément à l'éprouvette testée dans le laboratoire "Cerniera invisibile e regolabile 3D Kubica Modello K 6300" (Réf. Lab. 1211/11) et décrits dans le rapport d'essai N. 1211.0UN0360/11. Les résultats ne s'appliquent que pour des installations sur des portes ou des ouvrants de fenêtre de type similaire à ceux testés conformément à la norme EN 1634-1 et qui ont démontré des caractéristiques de déformation comprises dans le champ d'application directe des résultats de l'essai, si applicable.

Prato, 22/11/2011

Directeur de certification
Dott. Massimo Borsini

Le Directeur du Laboratoire
Dott. Luca Ermini

Ce document constitue la version française du certification de résistance au feu, publié le 22/11/2011 à soumettre un différend.

Ce document doit être lu avec les rapports d'essai, pour la description du produit et tout autre détail. Ce document ne constitue pas une approbation d'homologation ou certification du produit de même qu'une déclaration de conformité, de la responsabilité exclusive du fabricant ou du demandeur.

CERTIFICATE OF COMPLIANCE

Certificate Number 20170328-R27182
Report Reference R27182-20170327
Issue Date 2017-MARCH-28

Issued to: KRONA KOBLENZ SPA
VIA PIANE 90
47853 CORIANO RN ITALY

**This is to certify that
representative samples of** DOOR HINGES
ATOMIKA hinge

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 10C Standard for Positive Pressure Fire Tests of
Door Assemblies
ANSI/UL 10B Standard for Fire Tests of Door Assemblies

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

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Bruce Mahrenholz, Director North American Certification Program
UL LLC

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LGAI

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www.appluslaboratories.com



Bellaterra, 28th July, 2017

Sponsor: KRONA KOBLENZ S.p.A.
Factory: Via Piane, 90
Head office: Via O. Romero, 1
47853 Coriano (RN)
Italy

File number: 17/13711-160 M1
Report issued on: 07th July, 2017
Test Date: 1st February, 2017

Sample tested: A hinged timber double leaf door incorporating concealed hinges with reference "Atomika" by Krona Koblenz S.p.A.

Standard test: EN 1634-1:2014: "Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware. Part 1: Fire resistance test for door and shutter assemblies and openable windows".

The sample tested has been subjected to the conditions specified in the Standard EN 1634-1:2014, to verify the compliance with the criteria of integrity and thermal insulation.

Characteristics of the tested sample:Dimension of the door:

Overall dimensions (architraves included): 2203 x 2018 mm (height x width).
Dimensions of the clear opening: 2100 x 1816 mm (height x width).
Dimensions of active leaf: 2097 x 912 mm (height x width).
Dimensions of passive leaf (astragal not included): 2097 x 912 mm (height x width).
Thickness of each leaf: 60 mm.
Weight of the door (according to technical data provided by the sponsor):
Total weight of the door (leaves, frame and accessories included): 212 kg.
Total weight of the door (leaves and frame included): 203 kg.
Total weight of each leaf: 56 kg

Door tested with two concealed steel hinges with golden finish per leaf with reference "Atomika" by Krona Koblenz S.p.A.

Hinges tested with reference "Atomika" by Krona Koblenz S.p.A tested in a door which satisfied the following criteria:

Thermal insulation: 37 minutes.
Integrity: 37 minutes.

This document cannot be considered either a type approval or a certification of the product.

Responsible of Fire Laboratory
LGAI Technological Center, S.A.

Responsible of Fire Resistance
LGAI Technological Center, S.A.

The results refer only and exclusively to the samples tested in the moment and under the conditions indicated herein.

Service Quality Guarantee

Applus+, guaranties that this task has been carried out following the exigencies of our Quality and Sustainable System, complying with the contractual conditions and legal regulation.

Within the framework of our improvement programme, we would appreciate any comment you may deem appropriate, addressing them to the responsible who signs this document or to the Quality Director of Applus+, to the direction: satisfaccion_cliente@applus.com

This document is merely for informational purposes.

The results concern solely and exclusively with the tested sample in the moment and the indicated conditions.
Valid documents are the respective test report completed and emitted with number 17/13711-160 M1 issued by Applus- LGAI.
For more information of the tested sample and testing procedure see the complete test report.



LAPI LABORATORIO PREVENZIONE INCENDI S.p.A.
 Sede Primaria: I-59100 PRATO - Via della Quercia, 48
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 Sede Secondaria: I-50041 CALENZANO (FI) - Via Petrarca, 48
 e-mail: lapi@laboratoriolapi.it
 web site: www.laboratoriolapi.it

- ORGANISMO NOTIFICATO REGOLAMENTO PRODOTTI DA COSTRUZIONE 305/2011 CE
- ORGANISMO NOTIFICATO DISPOSITIVI PROTEZIONE INDIVIDUALE DIR. 89/686 CEE
- ORGANISMO NOTIFICATO DIRETTIVA NAVALE MED 2014/90 EU
- MEMBRO EGOLF e UNIFER
- RICONOSCIUTO UNITED STATES COAST GUARD (USCG)
- RICONOSCIUTO SOCIETÀ NAZIONALE CHEMIN DE FER (SNCF)
- RICONOSCIUTO CESIFER
- AUTORIZZATO BHF CALIFORNIA
- AUTORIZZATO MINISTERO INTERNI DM 26 3 85
- ACCREDITATO ACCREDIA N° 0086
- CERTIFICATO REGISTRO AERONAUTICO CIT 1007/L
- AUTORIZZAZIONE ENAC - ENTE NAZIONALE AVIAZIONE CIVILE CIT 1007/L
- PROVE SU AUTOVEICOLI AI SENSI DELLA DIRETTIVA 95/28 CE
- RICONOSCIUTO MED 96/98 EC - BUREAU VERITAS - DNV - LLOYD'S REGISTER



From: LAPI SpA
 To: Krona Koblenz SpA fax: by MAIL
 Att. to: Mrs Francesca Metalli
 Date: 21/12/2016 File: COM_RIS 2016/16 n. total page 1
 Oggetto/Object: COMUNICAZIONE PRELIMINARE RISULTATI PROVE/ COMMUNICATION OF TEST RESULTS

Con la presente alleghiamo risultati delle prove effettuate presso questo Laboratorio sul materiale indicato nella tabella./ We hereby attach the results of tests carried out in this laboratory on the material shown in the table.

ATTENZIONE/ATTENTION

LA SEGUENTE COMUNICAZIONE COSTITUISCE UNICAMENTE UN'ANTICIPAZIONE DEI RISULTATI DI PROVA CHE SARANNO RIPORTATI DETTAGLIATAMENTE NEL TEST REPORT./ THIS COMMUNICATION IS MERELY ANTICIPATION OF TEST RESULTS THAT WILL BE REPORTED IN DETAIL IN TEST REPORT.

RISULTATI DI PROVA del /TEST RESULTS 14/12/2016

Prova eseguita presso il Laboratorio LAPI di Resistenza al Fuoco
 Test carried out in LAPI Laboratorio Prevenzione Incendi SpA Resistance Laboratory in
 Via Petrarca, 48 - CALENZANO - FIRENZE

	UFFICIALE/OFFICIAL x SI/YES	SEGUO RAPPORTO DI PROVA/ TEST REPORT x SI/YES
SETTORE DI APPLICAZIONE FIELD OF APPLICATION	Civile - Chiusure tagliafuoco Construction product - Fire door.	
DESCRIZIONE MATERIALE DESCRIPION MATERIAL	Porte in legno a singola anta Wooden doors single leaf	
DENOMINAZIONE/NAME	Fire resistant door De Coene products DF30 with Krona Koblenz Kubica K6700 hinge Fire resistant door De Coene products DF30 with Krona Koblenz Atomika K8000 hinge	
NOTA/NOTE	Nessuna/None	
MATERIALE PROVATO MATERIAL TESTED	n.2 porte in legno a singola anta entrambe con apertura interno forno/ n. 2 Wooden doors single leaf both with opening towards the furnace	
SPECIFICA DI RIFERIMENTO SPECIFIC REFERENCE	EN 13501-2	
METODO DI PROVA TEST METHOD	UNI EN 1634-1	
DEROGHE/EXCEPTION	Nessuna/None	

RISULTATI DI PROVA/ TEST RESULTS

RIF. LAB	DENOMINAZIONE NAME	METODO METHOD	RISULTATI/CRITERIO TEST RESULT	TEMPO [min] TIME [min]
2016/16	Fire resistant door De Coene products DF30 with Krona Koblenz Kubica K6700 hinge	EN 1634-1	Integrità/Integrity	40 Presenza di fiamme persistenti/Presence of persistent flames
			Isolamento/Insulation	40(*) Non Perduto/Not Lost
	Integrità/Integrity		40 Presenza di fiamme persistenti/Presence of persistent flames	
	Isolamento/Insulation		40(*) Non Perduto/Not Lost	

(*) Interruzione della prova al 40° minuto/Interruption of the test at 40 minutes.

Sulla base dei risultati della prova si deduce che la resistenza al fuoco del campione in oggetto è stata di oltre 30 minuti nei confronti del requisito isolamento e nei confronti del requisito integrità. Di conseguenza il campione sarà classificato EI 30/Based on the results of the test it can be deduced that the fire resistance of the sample in object was over 30 minutes against the insulation requirement and against the integrity requirement. Therefore the specimen will be classified EI 30

LA PRESENTE COMUNICAZIONE/ THIS COMMUNICATION:

- NON VIENE CONSIDERATA IMPEGNATIVA DA PARTE DEL LABORATORIO, IL QUALE SI RISERVA IL DIRITTO DI MODIFICARE L'ESITO SOPRA RIPORTATO IN FUNZIONE DEI RISULTATI COMPLESSIVI OTTENUTI A SEGUITO DELLO SVOLGIMENTO COMPLETO DELLE PROVE./ DO NOT BINDING IS CONSIDERED BY THE LABORATORY WHICH WE RESERVE THE RIGHT TO CHANGE THE OUTCOME OF THE ABOVE FUNCTION IN OVERALL RESULTS OBTAINED WITH THE PERFORMANCE OF TESTS COMPLETE.
- NON PUO' ESSERE UTILIZZATA DA PARTE DEL RICHIEDENTE PER LA DIMOSTRAZIONE DI CONFORMITA' DEI PROPRI MATERIALI./ CAN NOT BE USED BY THE APPLICANT FOR THE DEMONSTRATION OF CONFORMITY OF ITS MATERIALS.
- NON SOSTITUISCE IN ALCUN MODO NE' PARZIALE NE' TOTALE IL RAPPORTO DI PROVA./ DO NOT REPLACE IN ANY WAY OR THE TOTAL OR PARTIAL TEST REPORT.

Cordiali saluti/Best Regards

LAPI SpA

FIRME	DIRETTORE TECNICO	RESPONSABILE CERTIFICAZIONE & DIVISIONE TRASPORTI	RESPONSABILE PROVA
RIM	dr. Luca Ermini	dr. Massimo Borsini Resp. Certificazione e Divisione Trasporti	Ing. Giuseppe Olivieri
2016/16			

Il presente Rapporto di Prova non può essere riprodotto in forma parziale senza l'autorizzazione scritta di questo Laboratorio