



CERTIFICATE OF APPROVAL

No CF 6134

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

Atlantic UK Architectural Hardware
Unit 362, Street 7, Thorp Arch Estate, Wetherby, LS23 7FL, United
Kingdom
Tel: 01423 882199

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT

**Atlantic UK Stainless Steel
Hinges**

TECHNICAL SCHEDULE

**TS24 The Contribution of
Single Axis Hinges to the Fire
Resistance of Door Assemblies**

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan
Certification Manager

Issued: 9th May 2023
Reissued: 5th February 2025
Valid to: 28th April 2025





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Atlantic UK Architectural Hardware

Atlantic UK Architectural Hardware Stainless Steel Ball Bearing Hinges

1. This approval relates to the use of Atlantic UK steel, single axis hinges with either square or radiused corners. This approval relates to the following specific hinges:

Grade 13 – Stainless Steel Ball Bearing Hinges 2BB		
Reference Code	Material	Description
ATL2000	Stainless steel	101 x 76 x 3mm square corners
ATL2001	Stainless steel	101 x 90 x 3mm square corners
ATL2002*	Stainless steel	101 x 101 x 3mm square corners
ATL2003	Stainless steel	125 x 76 x 3mm square corners
ATL2004	Stainless steel	150 x 76 x 3mm square corners
ATL2005*	Stainless steel	114 x 101 x 3.4mm square corners
ATL2006	Stainless steel	101 x 76 x 3mm radiused corners
ATL2007	Stainless steel	101 x 90 x 3mm radiused corners
ATL2008*	Stainless steel	101 x 101 x 3mm radiused corners
ATL2009	Stainless steel	125 x 76 x 3mm radiused corners
ATL2010	Stainless steel	150 x 76 x 3mm radiused corners
ATL2011*	Stainless steel	114 x 101 x 3.4mm radiused corners

Grade 11 - Steel Ball Bearing Hinges (2BB)		
Reference Code	Material	Description
ATL2012	Mild steel	101 x 76 x 2.6 mm square corners
ATL2013	Mild steel	101 x 76 x 3 mm square corners
ATL2014	Mild steel	101 x 88 x 3 mm square corners
ATL2015*	Mild steel	101 x 101 x 3.2 mm square corners
ATL2016	Mild steel	101 x 76 x 2.6 mm radiused corners
ATL2017	Mild steel	101 x 76 x 3 mm radiused corners
ATL2018	Mild steel	101 x 88 x 3 mm radiused corners
ATL2019*	Mild steel	101 x 101 x 3.2 mm radiused corners
ATL2020	Stainless steel	101 x 76 x 2.6 mm square corners
ATL2021	Stainless steel	101 x 76 x 3 mm square corners
ATL2022	Stainless steel	101 x 88 x 3 mm square corners
ATL2023*	Stainless steel	101 x 101 x 3.2 mm square corners
ATL2024	Stainless steel	101 x 76 x 2.6 mm radiused corners
ATL2025	Stainless steel	101 x 76 x 3 mm radiused corners
ATL2026	Stainless steel	101 x 88 x 3 mm radiused corners
ATL2027*	Stainless steel	101 x 101 x 3.2 mm radiused corners

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** Suitable for use on minimum 54 mm thick doors only*

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<i>Grade 7 - Steel Ball Bearing Hinges (2BB)</i>		
Reference Code	Material	Description
ATL2028*	Mild steel	76 x 101 x 2 mm square corners
ATL2029	Mild steel	76 x 50 x 2 mm square corners
ATL2030	Mild steel	76 x 62 x 2 mm square corners
ATL2031	Mild steel	76 x 76 x 2 mm square corners
ATL2032	Mild steel	101 x 76 x 2.6 mm square corners
ATL2033	Mild steel	101 x 76 x 3 mm square corners
ATL2034	Mild steel	101 x 88 x 3 mm square corners
ATL2035*	Mild steel	101 x 101 x 3.2 mm square corners
ATL2036*	Mild steel	114 x 101 x 3.2 mm square corners
ATL2037	Mild steel	76 x 50 x 2 mm radiused corners
ATL2038	Mild steel	76 x 62 x 2 mm radiused corners
ATL2039	Mild steel	76 x 76 x 2 mm radiused corners
ATL2040	Mild steel	101 x 76 x 2.6 mm radiused corners
ATL2041	Mild steel	101 x 76 x 3 mm radiused corners
ATL2042	Mild steel	101 x 88 x 3 mm radiused corners
ATL2043*	Mild steel	101 x 101 x 3.2 mm radiused corners
ATL2044*	Mild steel	114 x 101 x 3.2 mm radiused corners
ATL2045*	Stainless steel	76 x 101 x 2 mm square corners
ATL2046	Stainless steel	76 x 50 x 2 mm square corners
ATL2047	Stainless steel	76 x 62 x 2 mm square corners
ATL2048	Stainless steel	76 x 76 x 2 mm square corners
ATL2049	Stainless steel	101 x 76 x 2.6 mm square corners
ATL2050	Stainless steel	101 x 76 x 3 mm square corners
ATL2051	Stainless steel	101 x 88 x 3 mm square corners
ATL2052*	Stainless steel	101 x 101 x 3.2 mm square corners
ATL2053*	Stainless steel	114 x 101 x 3.2 mm square corners
ATL2054	Stainless steel	76 x 50 x 2 mm radiused corners
ATL2055	Stainless steel	76 x 62 x 2 mm radiused corners
ATL2056	Stainless steel	76 x 76 x 2 mm radiused corners
ATL2057	Stainless steel	101 x 76 x 2.6 mm radiused corners
ATL2058	Stainless steel	101 x 76 x 3 mm radiused corners
ATL2059	Stainless steel	101 x 88 x 3 mm radiused corners

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ATL2060*	Stainless steel	101 x 101 x 3.2 mm radiused corners
ATL2061*	Stainless steel	114 x 101 x 3.2 mm radiused corners

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** Suitable for use on minimum 54 mm thick doors only*

2. This certification is provided to the client for their own purposes, and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.
3. This approval relates to the use of the above single axis hinges in contributing to the fire resistance performance of timber based doorsets and steel based doorsets, as defined in BS EN 1634-1 or BS 476: Part 22: 1987.
4. This approval relates to their use with the following door assemblies: -

Latched and unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores in timber frames having a fire resistance up to 120 minutes (Code ITT).

Latched and unlatched, door assemblies consisting of uninsulated or insulated metal door assemblies in metal frames with or without intumescent seals having a fire resistance up to 120 minute or 240 minutes* (Code IMM/MM).

**Note: 240 minute MM/IMM approval relates to Grade 13 Stainless Steel Ball Bearing Hinges only*

5. The hinges are approved on the basis of:
 - i. Initial type testing to EN1935 and EN 1634-1
 - ii. An appraisal against TS24
 - iii. Certification of quality management system.
 - iv. Inspection and surveillance of factory production control
 - v. On-going audit testing in accordance with TS24 requirements
6. All door hardware is subject to the acceptance by the chosen door assembly supplier's tested, assessed or certificated scope, which generally identifies the types of hardware approved; and the required specification/design based on the key materials/ maximum size (e.g. blade size, knuckle diameter, etc.), and the application of any additional intumescent protection.

On this basis approval should be sought from the specific door assembly supplier to ensure compliance based on this assessed/certificated scope.

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7. The door assembly shall be a CERTIFIRE approved product or have achieved the appropriate fire resistance performance when tested at a UKAS accredited laboratory in accordance with BS 476: Part 22: 1987 and/or BS EN 1634:1.

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8. The hinges may only be fitted in the manner described in this certificate and subject to any limitations on the inclusion of hinges specified for the door leaf. This approval is applicable only to the specified hinges used with door assemblies of proven fire resistance (as defined in BS EN 1634-1 or BS 476: Part 22: 1987) and when using appropriate intumescent protection.
9. For ITT timber and mineral-based doorsets the hinges shall only be fitted using the fixings supplied by the hinge manufacturer.
10. Regard should be paid to the maximum door mass permitted to be used with the hinge (see classifications).
11. The ITT doorsets shall be installed in accordance with BS 8214.
12. The hinges should only be used with door assemblies of proven fire resistance (as defined in BS EN 1634-1 or BS 476: Part 22: 1987), the critical aspects of the doorset construction are considered to be the material of the door frame, the leaf to frame clearance gaps and the lipping material. Attention should be paid to these details, and these should not be amended from that previously fire tested. The following minimum specification shall be followed, unless the chosen doorset has evidence to the contrary with hinges of a similar size:
- a. 30 and 60 minute timber and mineral-based assemblies (ITT):
 - i) Door frame density - 460 kg/m³ (30 minutes), 640 kg/m³ (60 minutes)
 - ii) Door leaves shall have a minimum thickness of 44 mm for 30 minute applications and 54 mm for 60 minute applications.
 - iii) Lipping density - 640 kg/m³.
 - b. Steel-based assemblies (MM/IMM)
 - i) Door leaves shall have a minimum thickness of 44 mm for up to 240 minute applications.
13. For 90 minute and 120 minute timber and mineral-based assemblies (ITT), Atlantic UK hinges shall only be fitted to doorsets which have previously been tested with hinges of a similar size, subject to the following requirements:

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- i) The required intumescent protection shall be as tested by the chosen door manufacturer. In all cases this shall be a minimum of a 2 mm thick Interdens mono ammonium phosphate based intumescent sheet material incorporated beneath each hinge blade, however, this protection shall be increased as required based on the chosen doorset manufacturers test data.
- ii) A minimum of 10 mm of perimeter intumescent fire seal shall by-passed the hinges. Where the perimeter intumescent fire seal on the original test of the chosen doorset by-passes the hinge by more than 10 mm, this shall be maintained on the doorset incorporating the Atlantic UK chosen hinges.
- iii) The critical dimensions of the Atlantic UK hinge to be used shall be based on the size of the hinge tested originally by the chosen doorset manufacturer, with the following tolerance:

Hinge specification of chosen doorset	
Component/dimension	Tolerance/Rule
Hinge blade	
Width	+0/-5% of tested hinge
Height	+/-10% of tested hinge
Thickness	+/-15% of tested hinge
Knuckle	
Diameter	Minimum 11 mm
Fixings	
Quantity	Maximum 4No. fixings tested
Size	4.8 mm dia. Minimum
Length	No shorter than that tested
Position (width)	+/-10% from the positions of the fixings in the tested hinge when measured with respect to the centre lines of the blade

Note: Where the Atlantic UK hinge does not comply with the parameters identified above it shall not be used in conjunction with the chosen 90 minute and 120 minute timber and mineral-based assemblies (ITT).

- 14. When fitted to timber or mineral-based door assemblies, the required additional intumescent protection will be as follows:
 - i) The required protection for 30 minute ITT applications will be 1 mm thick Interdens mono ammonium phosphate based, or graphite based intumescent sheet material behind both blades.

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- ii) The required protection for 60 minute ITT applications will be 2 mm thick Interdens mono ammonium phosphate based, or graphite based intumescent sheet material behind both blades.
- iii) Additionally, for 60 minute ITT applications only, a minimum of 7.5 mm of perimeter intumescent fire seal within the edge of the door or frame rebate is required to by-pass the hinges.
- iv) The required intumescent protection for 90 and 120 minute ITT applications shall be as tested by the chosen door manufacturer. In all cases this shall be a minimum of a 2 mm thick Interdens mono ammonium phosphate based or graphite based intumescent sheet material incorporated beneath each hinge blade, however, this protection shall be increased as required based on the chosen doorset manufacturers test data.
- v) Additionally, for 90 and 120 minute ITT applications only, a minimum of 10 mm of perimeter intumescent fire seal shall by-passed the hinges. Where the perimeter intumescent fire seal on the original test of the chosen doorset by-passes the hinge by more than 10 mm, this shall be maintained on the doorset incorporating the Atlantic UK chosen hinges.

Failure to install the intumescent protection will invalidate this certificate.

15. The approval relates to ongoing production. The product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

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16. Matrix of acceptable doorset types

Class	Approved Door Type			
	IMM	MM	ITT	ITM
FD20	✓	✓	✓	✗
FD30	✓	✓	✓	✗
FD60	✓	✓	✓	✗
FD120	✓	✓	✓	✗
FD240	✓	✓	✗	✗
E 20	✓	✓	✓	✗
EI 20	✓	✓	✓	✗
E 30	✓	✓	✓	✗
EI 30	✓	✓	✓	✗
E 60	✓	✓	✓	✗
EI 60	✓	✓	✓	✗
E 90	✓	✓	✓	✗
EI 90	✓	✓	✓	✗
E 120	✓	✓	✓	✗
EI 120	✓	✓	✓	✗
E 240	✓*	✓*	✗	✗
EI 240	✓*	✓*	✗	✗

Key:

✓ - approved

✗ - Not approved

✓* *Note: 240 minute MM/IMM approval relates to Grade 13 Stainless Steel Ball Bearing Hinges only*

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17. Doors are classified as the following types:

Code ITT - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in timber-based frames.

Code ITM - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in steel frames.

Code MM - 20 to 240 minute doorsets consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames without intumescent seals.

Code IMM - 20 to 240 minute doorsets consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames with intumescent seals.

Scope of Approval:

- The hinges may not be fitted to timber doorsets without perimeter intumescent fire seals within the frame rebate or edge of the door leaf.
- Where graphite based intumescent sheet material is to be used in lieu of the mono ammonium phosphate tested, the proposed graphite-based intumescent sheet material, shall have suitable test evidence in the required thickness or less, with timber/mineral-based doorset of the required classification period, with steel hinges of a minimum size of 100 mm x 75 mm.
- The following hinges are approved for use on minimum 54 mm thick doors only:

ATL2002	ATL2043
ATL2005	ATL2044
ATL2008	ATL2045
ATL2011	ATL2052
ATL2028	ATL2053
ATL2035	ATL2060
ATL2036	ATL2061

- 240 minute MM/IMM approval relates to Grade 13 Stainless Steel Ball Bearing Hinges only

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Classification codes

The above approval provides the following classifications:

Grade 13 - Stainless Steel Ball Bearing hinges (2BB):

Category of duty	Number of test cycles	Test door mass	Fire resistance	Safety	Corrosion resistance	Security	Hinge grade
4	7	6	1	1	4	0	13

Grade 11 - Stainless Steel Ball Bearing hinges (2BB):

Category of duty	Number of test cycles	Test door mass	Fire resistance	Safety	Corrosion resistance	Security	Hinge grade
3	7	4	1	1	3	0	11

Grade 7 - Steel Ball Bearing Hinges (2BB):

Category of duty	Number of test cycles	Test door mass	Fire resistance	Safety	Corrosion resistance	Security	Hinge grade
2	7	2	1	1	2	0	7

Further Information

Further information regarding the details contained in this certificate may be obtained from Atlantic UK Architectural Hardware (Tel: 01423 882199).

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

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