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CERTIFICATE OF APPROVAL
No CF 5654

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

ALLEGION (UK) LTD

35 Rocky Lane, Aston, Birmingham
B6 5RQ United Kingdom

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	TECHNICAL SCHEDULE
Allegion Stainless Steel Ball Bearing Hinges	**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: 24th September 2018
Reissued: 21st October 2025
Valid to: 6th March 2028

warringtonfire certifire CERTIFICATION

certifire UKAS PRODUCT CERTIFICATION 0087

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ALLEGION (UK) LTD

Allegion Stainless Steel Ball Bearing Hinges

1. This approval relates to the use of Allegion Stainless Steel Ball Bearing Hinges as follows:

Size	Description	Code		
102 x 76 x 3 mm	5-knuckle 2 ball bearing hinge	4801.304.SS	4801.304.PS	4801.304.NS.SS
102 x 76 x 3 mm	5-knuckle 2 ball bearing hinge, with security stud	4811.304.SS	4811.304.PS	
102 x 89 x 3 mm	5-knuckle 2 ball bearing hinge	4802.304.SS	4802.304.PS	
102 x 102 x 3 mm	5-knuckle 2 ball bearing hinge	4803.304.SS	4803.304.PS	
102 x 102 x 3 mm	5-knuckle 2 ball bearing hinge, with security stud	4813.304.SS	4813.304.PS	
102 x 76 x 3 mm	5-knuckle 2 ball bearing hinge	4801.316.SS	4801.316.PS	4801.316.NS.SS
102 x 76 x 3 mm	5-knuckle 2 ball bearing hinge, with security stud	4811.316.SS	4811.316.PS	
102 x 89 x 3 mm	5-knuckle 2 ball bearing hinge	4802.316.SS	4802.316.PS	
102 x 102 x 3 mm	5-knuckle 2 ball bearing hinge	4803.316.SS	4803.316.PS	
102 x 102 x 3 mm	5-knuckle 2 ball bearing hinge, with security stud	4813.316.SS	4813.316.PS	

2. 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 or cellulosic cores in timber frames having a fire resistance of 30 and 60 minutes (Code ITT).

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

3. 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.

4. The Allegion hinges are single axis, stainless steel Class 13 5-knuckle, 2 ball bearing hinges. The hinges are approved with square corners and radiused corners.

5. 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 with hinges of a similar size.

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6. This approval relates to the use of the above single axis hinges in contributing to the fire resistance performance of latched or unlatched single-leaf or double-leaf, timber based doorsets and steel based doorsets, as defined in BS EN 1634-1:2014+A1:2018 or BS 476: Part 22: 1987.

7. 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

8. 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. Where this information is not known the following minimum specification will be followed:

   a. 30 and 60 minute timber based assemblies (ITT):

      i) Door frame density - 460 kg/m³ (30 minutes), 640 kg/m^3 (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/m^3.

   b. Steel-based assemblies (MM/IMM)

      i) Door leaves shall have a minimum thickness of 44 mm for up to 240 minute applications.

9. The above hinges may only be fitted to previously tested doorsets and door assemblies when fitted in the manner described in this certificate and when particular aspects of the door assembly are maintained.

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10. When fitted to insulated timber- 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 thickness of mono ammonium phosphate or graphite-based intumescent sheet material (see 'Scope of Approval' below) behind both blades.

    ii) The required protection for 60 minute ITT applications will be 2 mm thickness of mono ammonium phosphate or graphite-based intumescent sheet material (see 'Scope of Approval' below) behind both blades.

    iii) Additionally for 60 minute applications only a minimum of 8 mm of perimeter intumescent fire seal shall by-pass the hinge blades.

11. Regard should be paid to the maximum door mass permitted to be used with the hinge (see classification).

12. For ITT timber based doorsets the hinges shall only be fitted using the fixings supplied by the hinge manufacturer.

13. The ITT doorsets shall be installed in accordance with BS 8214.

14. The doorset, including door frame and associated building hardware, should be either CERTIFIRE approved for the relevant application and classification or the doorset, including door frame and associated building hardware, should have achieved the required fire resistance performance when tested, or subsequently assessed to BS 476: Part 22: 1987 or EN 1634-1.

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. The following table show acceptable doorset types and fire resistance periods:

	Approved Door Type			
Class	**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

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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 or cellulosic 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 or cellulosic cores, hung in metal 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.

Classification codes

The approval provides the following classification:

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

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-based doorset of the required classification period, in with steel hinges of a minimum size of 100 mm x 75 mm.

Further Information

Further information regarding the details contained in this certificate may be obtained from Allegion (UK) LTD (Tel: 0121 380 2400).

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