



CERTIFICATE OF APPROVAL

No CF 5852

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

RUTLAND UK

Whittington Way, Chesterfield, S41 9AG
Tel: 01246 261491

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
Rutland UK 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: 29th April 2020
Reissued: 30th April 2024
Valid to: 28th October 2024





CERTIFICATE No CF 5852 RUTLAND UK

Rutland UK Steel Hinges

1. This approval relates to the use of Rutland 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		
50576	Stainless steel	4" x 3" x 3 mm square corners
50577	Stainless steel	4" x 3.5" x 3 mm square corners
50578	Stainless steel	4" x 4" x 3 mm square corners*
50579	Stainless steel	4.5" x 4" x 3.4 mm square corners*
50580	Stainless steel	5" x 3" x 3 mm square corners
50581	Stainless steel	6" x 3" x 3 mm square corners
50582	Stainless steel	4" x 3" x 3 mm radiused corners
50583	Stainless steel	4" x 3.5" x 3 mm radiused corners
50584	Stainless steel	4" x 4" x 3 mm radiused corners*
50585	Stainless steel	4.5" x 4" x 3.4 mm radiused corners*
50586	Stainless steel	5" x 3" x 3 mm radiused corners
50587	Stainless steel	6" x 3" x 3 mm radiused corners

Grade 7 - Steel Ball Bearing Hinges (2BB)		
50588*	Mild steel	76 x 101 x 2 mm square corners
50589	Mild steel	76 x 50 x 2 mm square corners
50590	Mild steel	76 x 62 x 2 mm square corners
50591	Mild steel	76 x 76 x 2 mm square corners
50592	Mild steel	101 x 76 x 2.6 mm square corners
50593	Mild steel	101 x 76 x 3 mm square corners
50594	Mild steel	101 x 88 x 3 mm square corners
50595*	Mild steel	101 x 101 x 3.2 mm square corners
50596*	Mild steel	114 x 101 x 3.2 mm square corners
50597	Mild steel	76 x 50 x 2 mm radiused corners
50598	Mild steel	76 x 62 x 2 mm radiused corners
50599	Mild steel	76 x 76 x 2 mm radiused corners
50600	Mild steel	101 x 76 x 2.6 mm radiused corners
50601	Mild steel	101 x 76 x 3 mm radiused corners
50602	Mild steel	101 x 88 x 3 mm radiused corners
50603*	Mild steel	101 x 101 x 3.2 mm radiused corners
50604*	Mild steel	114 x 101 x 3.2 mm radiused corners

* Suitable for use on minimum 54 mm thick doors only

Page 2 of 11 Signed
R/001

Issued: 29th April 2020
Reissued: 30th April 2024
Valid to: 28th October 2024

CERTIFICATE No CF 5852 RUTLAND UK

Rutland UK Steel Hinges

Grade 7 - Steel Ball Bearing Hinges (2BB)		
50605*	Stainless steel	76 x 101 x 2 mm square corners
50606	Stainless steel	76 x 50 x 2 mm square corners
50607	Stainless steel	76 x 62 x 2 mm square corners
50608	Stainless steel	76 x 76 x 2 mm square corners
50609	Stainless steel	101 x 76 x 2.6 mm square corners
50610	Stainless steel	101 x 76 x 3 mm square corners
50611	Stainless steel	101 x 88 x 3 mm square corners
50612*	Stainless steel	101 x 101 x 3.2 mm square corners
50613*	Stainless steel	114 x 101 x 3.2 mm square corners
50614	Stainless steel	76 x 50 x 2 mm radiused corners
50615	Stainless steel	76 x 62 x 2 mm radiused corners
50616	Stainless steel	76 x 76 x 2 mm radiused corners
50617	Stainless steel	101 x 76 x 2.6 mm radiused corners
50618	Stainless steel	101 x 76 x 3 mm radiused corners
50619	Stainless steel	101 x 88 x 3 mm radiused corners
50620*	Stainless steel	101 x 101 x 3.2 mm radiused corners
50621*	Stainless steel	114 x 101 x 3.2 mm radiused corners

* Suitable for use on minimum 54 mm thick doors only

Grade 7 - Butt Hinge Plain Joint		
50622	Mild steel	76 x 76 x 1.9 mm square corners
50623	Mild steel	76 x 49 x 1.9 mm square corners
50624	Mild steel	101 x 71 x 1.9 mm square corners
50625	Mild steel	76 x 46 x 1.9 mm square corners
50626	Mild steel	101 x 58 x 1.9 mm square corners
50627	Mild steel	76 x 64 x 2.35 mm square corners
50628	Mild steel	101 x 76 x 2.5 mm square corners
50629	Mild steel	101 x 76 x 2.85 mm square corners
50630	Mild steel	76 x 76 x 1.9 mm radiused corners
50631	Mild steel	76 x 49 x 1.9 mm radiused corners
50632	Mild steel	101 x 71 x 1.9 mm radiused corners
50633	Mild steel	76 x 64 x 2.35 mm radiused corners
50634	Mild steel	101 x 76 x 2.5 mm radiused corners
50635	Mild steel	101 x 76 x 2.85 mm radiused corners





CERTIFICATE No CF 5852
RUTLAND UK

Rutland UK Steel Hinges

Grade 7 - Butt Hinge Plain Joint		
50636	Mild steel	90 x 49 x 1.9 mm square corners
50637	Mild steel	90 x 49 x 1.9 mm radiused corners
50638	Mild steel	90 x 46 x 1.9 mm square corners
50639	Mild steel	90 x 64 x 2.35 mm square corners
50640	Mild steel	90 x 64 x 2.35 mm radiused corners
50641	Mild steel	101 x 76 x 2.5 mm square corners
50642	Mild steel	101 x 76 x 2.5 mm radiused corners
50643	Mild steel	101 x 76 x 2.85 mm square corners
50644	Mild steel	101 x 76 x 2.85 mm radiused corners
50645	Stainless steel	76 x 49 x 1.9 mm square corners
50646	Stainless steel	101 x 71 x 1.9 mm square corners
50647	Stainless steel	76 x 64 x 2.35 mm square corners
50648	Stainless steel	101 x 64 x 2.5 mm square corners
50649	Stainless steel	101 x 76 x 2.5 mm square corners
50650	Stainless steel	101 x 76 x 2.85 mm square corners
50651	Stainless steel	76 x 49 x 1.9 mm radiused corners
50652	Stainless steel	101 x 71 x 1.9 mm radiused corners
50653	Stainless steel	76 x 64 x 2.35 mm radiused corners
50654	Stainless steel	101 x 76 x 2.5 mm radiused corners
50655	Stainless steel	101 x 76 x 2.85 mm radiused corners
50656	Stainless steel	90 x 49 x 1.9 mm square corners
50657	Stainless steel	90 x 49 x 1.9 mm radiused corners
50658	Stainless steel	90 x 64 x 2.35 mm square corners
50659	Stainless steel	90 x 64 x 2.35 mm radiused corners
50660	Stainless steel	101 x 76 x 2.5 mm square corners
50661	Stainless steel	101 x 76 x 2.5 mm radiused corners
50662	Stainless steel	101 x 76 x 2.85 mm square corners
50663	Stainless steel	101 x 76 x 2.85 mm radiused corners
50664	Stainless steel	101 x 71 x 1.9 mm square corners
50665	Stainless steel	101 x 64 x 2.5 mm square corners

CERTIFICATE No CF 5852 RUTLAND UK

Rutland UK Steel Hinges

Grade 11 - Steel Ball Bearing Hinges (2BB)		
50592	Mild steel	101 x 76 x 2.6 mm square corners
50593	Mild steel	101 x 76 x 3 mm square corners
50594	Mild steel	101 x 88 x 3 mm square corners
50595*	Mild steel	101 x 101 x 3.2 mm square corners
50600	Mild steel	101 x 76 x 2.6 mm radiused corners
50601	Mild steel	101 x 76 x 3 mm radiused corners
50602	Mild steel	101 x 88 x 3 mm radiused corners
50603*	Mild steel	101 x 101 x 3.2 mm radiused corners
50609	Stainless steel	101 x 76 x 2.6 mm square corners
50610	Stainless steel	101 x 76 x 3 mm square corners
50611	Stainless steel	101 x 88 x 3 mm square corners
50612*	Stainless steel	101 x 101 x 3.2 mm square corners
50617	Stainless steel	101 x 76 x 2.6 mm radiused corners
50618	Stainless steel	101 x 76 x 3 mm radiused corners
50619	Stainless steel	101 x 88 x 3 mm radiused corners
50620*	Stainless steel	101 x 101 x 3.2 mm radiused corners

* 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 metallic 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*





CERTIFICATE No CF 5852

RUTLAND UK

Rutland UK Steel Hinges

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. 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.
7. 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.
8. For ITT timber and mineral-based doorsets the hinges shall only be fitted using the fixings supplied by the hinge manufacturer.
9. Regard should be paid to the maximum door mass permitted to be used with the hinge (see classifications).
10. The ITT doorsets shall be installed in accordance with BS 8214.
11. 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:
 - 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.

CERTIFICATE No CF 5852 RUTLAND UK

Rutland UK Steel Hinges

b. Steel-based assemblies (MM/IMM)

- i) Door leaves shall have a minimum thickness of 44 mm for up to 240 minute applications.
12. For 90 minute and 120 minute timber and mineral-based assemblies (ITT), Rutland hinges shall only be fitted to doorsets which have previously been tested with hinges of a similar size, subject to the following requirements:
- 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 Rutland chosen hinges.
- iii) The critical dimensions of the Rutland 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 Rutland 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).





CERTIFICATE No CF 5852

RUTLAND UK

Rutland UK Steel Hinges

13. When fitted to timber or mineral composite-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.
 - 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 or 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 or 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 Rutland chosen hinges.

Failure to install the intumescent protection will invalidate this certificate

14. 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.

CERTIFICATE No CF 5852 RUTLAND UK

Rutland UK Steel Hinges

15. Matrix of acceptable doorset types

Class	Approved Door Type				
	IMM	MM	ITT	ITM	ITC
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*





CERTIFICATE No CF 5852

RUTLAND UK

Rutland UK Steel Hinges

16. Doors are classified as the following types:

Type MM - 20 minute to 240 minute doorsets that consist of metallic leaves in metallic frames that do not contain intumescent materials in the frame to leaf gap.

Type IMM - 20 minute to 240 minute doorsets that consist of metallic leaves in metallic frames that contain intumescent materials in the frame to leaf gap.

Type ITT - 20 minute to 120 minute doorsets containing intumescent seals and consisting of non-metallic faced and edged leaves hung in timber frames

Type ITM - 20 minute to 120 minute doorsets containing intumescent seals and consisting of non-metallic faced and edged leaves hung in metal frames.

Type ITC - 20 minute to 120 minute doorsets containing intumescent seals and consisting of non-metallic faced and edged leaves hung in proprietary composite frames, of which the principal material is other than timber or metal but which may include any other materials.

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:

50578	50604
50579	50605
50588	50612
50595	50613
50596	50620
50603	50621

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

Page 10 of 11 Signed
R/001

Issued: 29th April 2020
Reissued: 30th April 2024
Valid to: 28th October 2024



CERTIFICATE No CF 5852 RUTLAND UK

Rutland UK Steel Hinges

Classification codes

The above approval provides the following classifications:

Grade 13 - Stainless Steel Ball Bearing hinges:

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 7 - Steel Ball Bearing Hinges (2BB) and Grade 7 - Butt Hinge Plain Joint:

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

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

Further Information

Further information regarding the details contained in this certificate may be obtained from Rutland UK (Tel: 01246 261491).

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

Page 11 of 11 Signed
R/001

Issued: 29th April 2020
Reissued: 30th April 2024
Valid to: 28th October 2024