



CERTIFICATE OF APPROVAL

No CF 370

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

SAMUEL HEATH & SONS PLC

Leopold Street, Birmingham, B12 0UJ
Tel: 0121 772 2303 Fax: 0121 772 3334

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

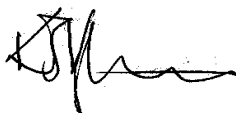
CERTIFIED PRODUCT

**R100 Perko-Powermatic &
 R106FS Perko-Powermatic
 Free Swing Concealed
 Controlled Door Closers**

TECHNICAL SCHEDULE

**TS34 The Contribution of
 Controlled Door Closing
 Devices and Accessories to
 Fire Resisting Doorsets**

Signed and sealed for and on behalf of CERTIFIRE



Sir Ken Knight
 Chairman - Management Council

Issued: 22nd September 2004
 Reissued: 06th October 2014
 Valid to: 05th October 2019

Page 1 of 7



CERTIFICATE No CF 370

SAMUEL HEATH & SONS PLC

Samuel Heath & Sons R100, R106FS Perko-Powermatic concealed controlled door closers

1. This approval relates to the use of the R100 and R106FS Perko-Powermatic concealed controlled door closers in contributing to the fire resistance performance of timber based doorsets, as defined by EN 1634-1 or BS 476: Part 22, for periods of 30 or 60 minutes integrity.
2. This certification is designed to demonstrate compliance of the product or system specifically with Approved Document B (England and Wales), Section D of the Technical Standards (Scotland) and Technical Booklet E (N. Ireland). If compliance is required to other regulatory or guidance documents there may be additional considerations or conflict to be taken into account.
3. The closers are approved on the basis of:
 - i. Initial type testing to BS EN 1154, BS EN 1155 (as relevant) and BS EN 1634-1.
 - ii. A design appraisal against TS34.
 - iii. Inspection and surveillance of factory production control.
 - iv. On-going audit testing in accordance with EN 1154 requirements.
4. The Samuel Heath & Sons R100 and R106FS Perko-Powermatic closers have a power size 3 in accordance with EN 1154.
5. This approval relates to the R100 and R106FS Perko-Powermatic concealed door closers used with latched or unlatched single-leaf or double-leaf door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores and in timber frames (Codes TT and ITT) not less than 44 mm thick for up to 30 minute applications and not less than 53 mm thick for 60 minute applications. The door frame shall consist of timber with a minimum density of 450 kg/m³ (with leaf to frame gaps up to 3mm), for FD20, FD30, E30 and EI30 applications, or alternatively MDF having minimum dimensions of 70 mm by 25 mm with a minimum density of 700 kg/m³ (with leaf to frame gaps up to 3mm), for FD20 and FD30 applications. For FD60, E60 and EI60 applications the door frame shall be hardwood with a minimum density of 550 kg/m³ (with leaf to frame gaps up to 3mm).



CERTIFICATE No CF 370

SAMUEL HEATH & SONS PLC

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6. The closers unit may be fitted within flush door leaves, moulded or panelled door leaves and tubecore door leaves subject to the requirements given in the Scope of Approval detailed later.
7. The closers may only be fitted to previously tested timber door assemblies when fitted in the manner described in this certificate and when particular aspects of the door assembly detailed in this approval are maintained.
8. The closers shall only be fitted using the fixings supplied by the closer manufacturer.
9. 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 at least 20, 30 or 60 minutes (as appropriate) fire resistance when tested, as required, or subsequently assessed to BS 476: Part 22: 1987 or EN 1634-1. In either case regard should be paid to the maximum door mass permitted to be used with the closer (see classification)
10. The doorset shall be installed in accordance with BS 8214: 2008.
11. The approval relates to on-going production. 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 370 SAMUEL HEATH & SONS PLC

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Matrix of acceptable doorset types and fire resistance periods

Class	Approved Door Type			
	TT	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	✗	✗	✗	✗

* Subject to the restriction on door construction types detailed in the Scope of Approval.

Key:

- ✓ - Approved
- ✗ - Not approved

CERTIFICATE No CF 370

SAMUEL HEATH & SONS PLC

Samuel Heath & Sons R100, R106FS Perko-Powermatic concealed controlled door closers

Scope of Approval:

- The R100 closer may be fitted to doorsets without intumescent protection for up to 20 minutes integrity.
- The closer units shall not be fitted higher than 1000 mm from the base of the door leaf.
- The door frame for doorsets for performances for up to 30 minutes shall consist of timber with a minimum density of 450 kg/m³ (with leaf to frame gaps less than 3mm).
- The closers may be fitted to FD30 doorsets having a frame specification meeting the following dimension and density requirements: MDF with a minimum density of 700 kg/m³ and minimum dimensions of 70 mm by 25 mm with a planted door stop 25 mm by 12 mm (with leaf to frame gaps less than 3mm).
- The door frame for doorsets for all 60 minute performances shall consist of hardwood timber with a minimum density of 550 kg/m³ (with leaf to frame gaps less than 3mm).
- For FD30 doorsets only, the closers may be installed into previously proven, lipped or unlipped doors for 30 minute performances. Subject to the door leaf lipping or stile (if unlipped) having a minimum density of 450kg/m³.
- For FD30 doorsets only, the closers may be fitted to tubecore door constructions for performances up to 30 minutes the door leaves shall have timber lippings with a minimum density of 450 kg/m³.
- The door closers may be fitted to moulded or panelled doors and glazed doors for performances of 30 minutes and 60 minutes, subject to the requirement that any part of the mortise cut out being positioned not closer than 10 mm from the mould detail, panel edge groove or glazing aperture.
- In situations where the installation of the closer cannot comply with the above requirement, i.e. the installation would need the mortise cutting closer than 10 mm from a panel edge, it is possible to fit the closer in reverse such that the closer body is mounted through the door frame and projects through the back of the door frame and into either the wall cavity, or an aperture specifically provided to accommodate the closer body within the supporting wall construction. All other aspects of the approved use, i.e. door gaps and use of intumescent protection shall be maintained. This application is only approved for use on fully latched doorsets.
- For all 60 minutes performances the door leaves shall be a minimum of 53 mm thick and shall have timber lippings with a minimum density of 600 kg/m³.

CERTIFICATE No CF 370

SAMUEL HEATH & SONS PLC

Samuel Heath & Sons R100, R106FS Perko-Powermatic concealed controlled door closers

Intumescent Protection Requirements

- The R100 closer unit shall be bedded upon intumescent mastic which shall be provided by the manufacturer and is detailed within the manufacturer's product data sheet. Alternatively, the R100 may be fitted with the manufacturer's R97-XX intumescent protection kit which comprises pre-cut, self-adhesive intumescent sheet material.
- The R106FS closer unit shall be bedded upon intumescent mastic which shall be provided by the manufacturer and is detailed within the manufacturer's product data sheet. Alternatively, the R106 may be fitted with the manufacturer's R97-FS-XX intumescent protection kit which comprises pre-cut, self-adhesive intumescent sheet material. The unit is also provided with factory fitted pads of intumescent material fitted to the flanges of the door fixing plate and rear face of the terminal block cover plate; these must not be removed regardless of which intumescent protection option is used.

Additional Intumescent Protection Requirements For The R106FS

The free swing function of the unit requires it to be connected to a power supply. The unit will be connected via a wired connection from the closer body to a suitable conductor hinge.

The routing of the wires and the placement of a terminal connection block within the door leaf edge is designed such that the wires and block are mounted behind the door leaf standard intumescent seal. For 30 minute doorsets the seal must be a minimum of 15 mm wide by 4 mm thick and be mounted within the door leaf edge. For 60 minute applications the standard door seal must be a single, centrally positioned seal such that it covers the wires and groove.

In situations where the standard door intumescent seals are frame mounted (both 30 and 60 minute applications), the intumescent seal fitted over the wires shall be additional to the doorset's standard seals and shall extend from the edge of the door fixing plate to the mortise for the terminal block and from the terminal block mortise to abut against the conductor hinge.

In situations where 60 minute doorsets include two separate seals mounted about the centreline of the door leaf edge, it is acceptable to plant the length of additional intumescent seal between the two standard seals. The width of the additional seal shall be determined by the gap between the standard seals and its thickness shall remain as 4 mm. The following table summarises the additional seal requirements.

**CERTIFICATE No CF 370
SAMUEL HEATH & SONS PLC**

Samuel Heath & Sons R100, R106FS Perko-Powermatic concealed controlled door closers

30 or 60 minute doorset - frame mounted seals	60 minute doorset – door mounted twin seals
Additional seal minimum 15 mm by 4 mm fitted to the leaf edge between the closer and terminal block mortises and between the terminal block mortise and the conductor hinge.	Additional seal minimum 4 mm thick fitted between the standard seals fitted to the leaf edge between the closer and terminal block mortises and between the terminal block mortise and the conductor hinge.

Classification code

The approval provides the following classifications:

R100 Perko-Powermatic – Maximum leaf weight 79 kg

3	8	3	1	1	3
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R106FS Perko-Powermatic Free Swing – Maximum leaf weight 79 kg

3	5	3	1	1	3
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Further Information

Further information regarding the details contained in this certificate may be obtained from Samuel Heath & Sons PLC (Tel: 0121 772 2303).

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