

# Specifying Security Hardware for Doors

A guide for security and building professionals, installers and locksmiths produced by **dhf** and The Glass and Glazing Federation.





# dhf Best Practice Guide: Specifying Security Hardware for Doors - a guide for security and building professionals, installers and locksmiths


## Why does the trade need to use this guide?

The security of domestic and commercial property is under threat now more than ever before. Methods of lock attack, previously only known to locksmiths and “professional” burglars, are now laid bare on the internet for all to see. In the UK there are 45 million residential doors. It is estimated that two thirds of these are vulnerable to attack.

## What the **dhf** and GGF are doing to drive up domestic security standards

Members of the **dhf** Building Hardware Group have been working with the authorities to set new lock performance standards and quality marks for products that resist attack. The Glass & Glazing Federation (GGF) say all glazed doors must be glazed in accordance with the relevant part of the Building Regulation or Standards in relation to safety glazing. This guide provides an at-a-glance summary of both the new and existing standards that cover door security, along with a description of the products available that meet those standards. The scope of this guide for the trade ranges from the complete enhanced security doorset, through the various types of locks available, to door fittings and types of glazing that make a vital contribution to door security.



	Product	Standard	Application
	Complete doorset	PAS 24	Front and back doors and patio doors for dwellings
	Mortice and rim locks	BS 3621 family	Timber residential exterior doors
	Multipoint lock	PAS 3621 family	PVC-u patio doors and other PVC-u exterior doors with multipoint lock mechanisms
	Electromechanical lock	TS 621	Any door incorporating key-free lock
	Retrofit security handle and/or lock cylinder	TS 007	PVC-u domestic exterior doors requiring uprated security
	Door viewer	TS 002	Any external door
	Door restrictor	TS 003	Any external door
	Letter plate assemblies and slide through boxes	TS 008	Any external door
	Letter box	TS 009	Letter boxes sited externally
	Security glazing (GGF)	BS EN 12600:2002 - Glass in building. Pendulum test. Impact test method and classification for flat glass EN 356 - Glass in building. Security glazing. Testing and classification of resistance against manual attack	All glazed security doors

## Description

## Benefit

Door supplied complete with enhanced security hardware	Security solution for the complete door, no need to add security hardware
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<p>BS 3621 family comprises:</p> <p><b>BS 3621</b> Can be locked from both sides of the door</p> <p><b>BS 8621</b> Door locked by key from outside only</p> <p><b>BS 10621</b> As BS 8621 with option to disable keyless egress from the outside</p>	Recognised as the “gold standard” for single point locks, holds the familiar Kitemark
<p>PAS 3621 family comprises:</p> <p><b>PAS 3621</b> Can be locked from both sides of the door</p> <p><b>PAS 8621</b> Door locked by key from outside only</p> <p><b>PAS 10621</b> As PAS 8621 with option to disable keyless egress from the outside</p>	Extends equivalent BS 3621 levels of security to multipoint locks
Standard covers electromechanical locks such as smart or key-free locks operated by remote fob or other keyless entry methods. Can be programmed to offer all equivalent combinations of BS 3621 family	Extends BS 3621 levels of security to electromechanical locks
Requirement is for 3 star security - achieved by combination of 1 star cylinder with 2 star security hardware, or 3 star cylinder	Provides protection against lock snapping, bumping and other forms of lock attack techniques available on the internet. Use of Kitemark for customer reassurance

Optical device with wide angle lens to give the building occupant a one-way viewing facility to the outside of the door	Allows building occupant to detect and identify callers without having to reveal their own identity, or even their presence, to the caller
Door chain or limiter that restricts the door opening	Keeps callers at bay whilst permitting sufficient door opening to allow identification of caller and conversation
The flap covering the door aperture for receipt of postal items together with letter box on the inside of doors, walls or panels	Provides resistance to attempts to reach through the aperture to obtain keys or extract postal items. Also provides fire and smoke protection if inflammable materials or lit fireworks are posted
Receptacle mounted on the exterior wall of a building or free standing into which postal items are deposited	Guards against the risk of theft or damage to the postal items within the letterbox

All glazed doors must be glazed in accordance with the relevant part of the Building Regulations or Standards relating to safety glazing	The inclusion of safety glazing in or adjacent to a door will reduce the incidence of serious cutting or piercing injuries should the glazing be broken by accidental human impact
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## Complete doorset security solution

### PAS 24

For a replacement door, specify a PAS 24 rated door. These are supplied complete with enhanced security hardware. It is an assurance that the door, frame, locks and fittings have all been attack tested. PAS 24 doorsets are available in different materials.

## Locks

### BS 3621, BS 8621 & BS 10621

Locks meeting **BS 3621** can be traditional five lever mortice locks and also cylinder rim night latches and cylinder mortice locks. They carry the BSI Kitemark.

Locks to **BS 3621** can be locked by the key from both sides. This is best used where emergency escape is not required, or where other means of escape exist.

Locks to **BS 8621** can be locked by a key from the outside only, and can always be opened from the inside without a key. This is best used where there is no danger of the inside handle being operated from the outside by - for example - reaching through a letter box.

Locks to **BS 10621** can be locked by a key from the outside only; they can be opened from the inside without a key except when this function has been disabled by a positive key operation from the outside. This is best used in locations where an alternative means of escape exists, and there is no danger of the inside handle being reached from the outside. These should never be used in flats where no alternative means of escape exists.

### PAS 3621

**PAS 3621** extends equivalent BS 3621 levels of security to multipoint locks and so gives protection against bumping, snapping, picking and drilling. As with the BS "family", the 3621, 8621 and 10621 variants offer key-key, keyless egress and dual-mode functions respectively. They carry the BSI Kitemark.

### DHF TS 621

**DHF TS 621** extends the equivalent BS 621 levels of security to all types of smart or key-free locks operated by remote fob or other keyless entry methods. Being multi-functional they can be programmed to provide key-key, keyless egress and dual-mode functions. If voltage drops, or electric wires are cut, there is no loss of security.

## Lock cylinder protection

### TS 007

**dhf**/GGF joint standard TS 007 features enhanced security performance requirements for replacement lock cylinders and associated security hardware for domestic exterior doors. It incorporates the use of a Kitemark symbol and star ratings that range from one to three stars. TS 007 is designed as a three star solution. Security can be achieved by either a combination of a cylinder (marked with one star) and security door furniture (marked with two stars); or a "super cylinder" (marked with three stars) that successfully resists snapping and other forms of attack.

(If your customer needs more information on home security, refer them to the **dhf** website, [www.dhfonline.org.uk](http://www.dhfonline.org.uk). This informs householders about the threats to their homes and what they should do to increase security)

## Door fittings

### DHF TS 002

Fitting an optical device with wide angle lens such as a viewer gives the building occupant a one-way viewing facility to the outside of the door. It allows the occupant to see who is visiting before they open the door. The TS 002 rating is an assurance that the product is fit for purpose and guarantees it is suitable for use on a fire door. It is also rated for angle of vision, visual clarity, and resistance to misting.

### DHF TS 003

A door chain, limiter, opening restrictor or limiting stay that prevents the door from opening wide can be rated to TS 003. The product keeps callers at bay whilst permitting sufficient door opening to allow identification of the caller and to hold a conversation. TS 003 rates the product according to its ability to stand up to abuse, suitability for use on fire doors, corrosion resistance and maximum door opening under load.

### DHF TS 008

TS 008 is a rating for the letter plate, or flap, covering the door aperture for receipt of postal items, together with a letter box on the inside of doors, walls or panels.

### DHF TS 009

TS 009 is the security rating for the external receptacle into which postal items are deposited. Provides resistance to attempts to remove the mail from the box, or to remove the entire box from the wall or post onto which it is mounted.



## Security glazing

All glazed doors must be glazed in accordance with the relevant part of the Building Regulations or Standards in relation to safety glazing. This means that, apart from small panes (less than 0.5 m<sup>2</sup> and minimum dimension less than 250 mm), all glazing must be classified as safety glazing by testing to EN 12600, either toughened (thermally or chemically) or laminated safety glass.

Security glazing installed in doors and adjacent panels must contain at least one pane of laminated glass, classified in accordance with EN 356 with a minimum level of P1A. This will ensure that if the glass is broken during an attempted break-in, the glazing will remain in place due to the PVB interlayers and will resist the expected level of force anticipated in an opportunist attempted burglary. Generally a 6.8mm laminated glass will be classified to this level but confirmation should be obtained from the supplier.

If the door is energy rated (DSER) for compliance with Building Regulations and Standards, the inclusion of laminated glass will affect the solar gain calculations and possibly reduce the DSER of the door. The effect on solar gain can be minimised by installing IGUs with the laminated pane to the inside face of the door.

## dhf

This guide has been produced by the **dhf** Building Hardware Group.

**dhf** represents all the key players in industrial, commercial and garage doors and gates, as well as the leading UK manufacturers and suppliers of building hardware, locks and architectural ironmongery.

With the ultimate aim of maintaining and raising quality standards throughout the industry, all **dhf** members must meet minimum standards of competence and customer service. They all operate within a Code of Conduct governing standards of workmanship, quality assurance, training, safety, business integrity and CE marking compliance.

**dhf** provides professionals in all sectors of the building industry with a single source for technical expertise.

## The Glass & Glazing Federation



The Glass & Glazing Federation (GGF) is the trade association representing companies who make, supply or fit, glass and glazing related products. It is the primary representative organisation for companies involved in all aspects of the manufacture of flat glass and products and services for all types of glazing, in commercial and domestic sectors.

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