



CLARITY ON BUILDING REGS PART Q- BUILDING SECURITY

DOORSETS - PAS 24 v STS202 BR2

The Standards and how they should be applied.

OVERVIEW

Building Standards due to legal reasons can only insert National Standards (BS/EN etc) within their Documents for cross reference as a required Performance Level. PAS24 enjoys an intellectual space between a National Standard and a Test House Standard and since there are no National Standards covering doors and windows, the only reference therefore that could be included within the Approved Document is PAS24 – Door Security.

This unfortunately is a limited Standard which had been used extensively covering ALL types of doorsets and in many instances is not appropriate.

However SBD were consulted during the writing of the document and they were able to have further Test House Standards to be also referenced - STS202 BR2 and LPS1175 SR2 - though not elaborated upon to fully explain their significance.

Importantly *Secured by Design* were able to have their specialist security advice recognised within the Approved Document as a Referral Document - “Homes 2016” Design Guide - which is a separate and more extensive publication and is aimed at driving the specifications to the relevant performance levels for specific doors and windows, which fall outside the PAS24 “umbrella” performance requirement.

SBD “Homes 2016” Section 2A Para 21- PAS24:2012 & PAS24:2016 is intended for a private dedicated entrance doorset to a house, bungalow and flats, apartments or maisonettes, eg the individual entrance door (front and back) direct into the dwelling with the test generally involving a ram load being applied onto the mechanical lock snib to ensure it will withstand a forced attempt to break in.

SBD “Homes 2016” Section 2A Para 27.3 – Communal Doorsets stipulates either STS202 BR2 or LPS1175 SR2. Whilst PAS24 is also indicated this should involve further testing to BSEN1627 Resistance Class 3. However doors secured on magnetic locking fall outside the scope of BSEN1627 and therefore cannot be assessed against STS202 BR2 or LPS1175 SR2

For Access Control functionality the optimum locking solution however is not mechanical locks but powerful electromagnetic locks, which are instant, efficient and reliable with no moving parts to break or foul the smooth operation of locking & unlocking and therefore fall outside the PAS24 / BSEN1627 testing regime.

Typical PAS24 Doorsets



PAS24 does not involve any scrutiny / breaking of the glazing – only attempts to remove it from the frame should the glazing cassette allow a body to enter through it – significantly most flat entrance doors are timber /composite with a door viewer or the glazing to a minimum area to prevent this illegal entry method.

Therefore how can a modern fully glazed main entrance door comprising maximum viewing / daylight into the common lobby area for added safety and security be sanctioned to be acceptable at PAS24 performance when over 90% of the door mass is untested against any meaningful attack!!!

COMMUNAL DOORSETS - THE CORRECT SPECIFICATIONS

STS202 BR2 Level of Burglary Resistance is a Test House standard from EXOVA Warrington, as LPS1175 SR2 is an alternative BRE Test House standard. Both test standards are specifically aimed the external Common Doorsets required for multi-occupancy dwellings – communal main entrances, refuse & cycle stores etc where the opportunity to gain illegal entry can reap greater rewards or more severe vandalism once inside with multiple opportunities available.

These tests include physical attack and manipulative efforts on the perceived weak points of the door to gain entry – door construction, locking system, hinges, glazing and the door entry panels plus Fireman’s emergency switch which are outside PAS24 criteria.

STS202 BR2 compliances

Door Construction – robust fully welded mild steel profiles with integral maglocks and armature plates as part of the doorset design – not “bolted on” or retro-fitted face fixed maglocks fitted to mechanically fixed slamposts.

Door Style – Solid, Louvred, Portcullis, 2XG or Pattern 10 (fully glazed) with proven resilience against illegal physical attempts to “break and enter” through the “glazing” insert medium.

Door Locking – As electromagnetic locking is the optimum solution for multiple use, access controlled doors, these must be part of the tested model.

Door Operation – As these doors are operated via the door entry / access control system and this is often fitted within the door entrance screen to meet BS8300 and Building Regs Part M (Disabled Persons) the DE panel is also attacked to prevent wire manipulation to by-pass the locking.

PAS24 does not facilitate this.

Therefore how can a “Best Practice” compliant doorset comprising integral access control panels be sanctioned to be acceptable for PAS24 performance when it contains an untested and unprotected relative easy means of unauthorised entry !!!.

Fire Safety – At high level there is a requirement for a Fireman’s Switch to quickly override the locking system and gain a speedy entrance. Again this is subject to wire manipulation in STS202 BR2 tests – but not covered via PAS24 test regime.

PAS24 does not facilitate this

Therefore how can a “Best Practice” compliant doorset comprising integral Fireman’s Switch be sanctioned to be acceptable for PAS24 performance when it contains an untested and unprotected relative easy means of unauthorised entry !!!.

The Secured by Design “Legacy”

THE CORRECT SPECIFICATION equals CONTINUAL SECURITY

Some Companies have undertaken PAS24 testing on Aluminium doorsets with maglocks to suit access control. However as these doors are mechanically fabricated using cleats / screws with “bolted-on” slamposts, the high (and often aggressive*) usage of these doors will quickly break the joints with subsequent door failure. (*collisions from furniture removal, bulky shopping items, “wheelie” bins collisions for refuse doors etc).

Once door malfunction occurs, due to this weaker construction, serious and ongoing security issues arise which SBD try to avoid from the initial Design Stage by stipulating STS or LPS performance specifications to ensure appropriate and reliable security levels, with the assured enhanced lifespan that these robustly tested doorsets provide.

Major Housing organizations, who are responsible for the long term maintenance of the buildings recommend and specify the use of Mild Steel Doors due to this longevity of use with minimum maintenance “on costs” during the prolonged lifetime of these doors and often reject aluminium products as unacceptable and non-compliant to their ER’s. This should be particularly noted when the Envelope Works are awarded to Curtain Walling Companies as a “one stop shop” package.

NEOS Protect Ltd now work with many of these companies “inserting” the correct SBD Entrance Doors within the Aluminium façade for total project compliances to meet all current “Best Practices”.



STS202 BR2 Tested Mild Steel Doorset within Curtain Walling Facade

SUMMARY

The AD Part Q – “*Building Security*” deliberately includes *Secured by Design* as a further reference and allows elaboration of the performance specifications to be more specific to the particular project demands and door usage.

“Further advice is available in Secured by Design “Homes 2016” Design Guide”

The Crime Prevention Officer / Designing Out Crime Officer can then assess the Development’s needs based upon location, crime history and size of the scheme to give expert advice on the particular requirements for all the doors and they have the flexibility to advise as follows:-

Rural location with low crime history and small development up to 4No flatted units – PAS24 would be acceptable.

Urban location with crime risk or background and larger developments from 4No – 100No + flatted units – STS202 BR2 / LPS1175 SR2 would be the required performance, with further layered security requirements based on the development size.

“RULE OF THUMB” GUIDE



PAS24
Private And Single



STS202 BR2
Shared Traffic Scenarios

Note:- This document is provided by NEOS Protect Ltd as a reference document only based on our own experience and expertise within this sector.

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