Door Lock Regulations for Exit and Fire Doors. BCA D2.21 (Building Codes of Australia) Includes AS1428.1 & AS1905.1

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Door Lock Regulations for Exit and Fire Doors. BCA D2.21 (Building Codes of Australia) Includes AS1428.1 & AS1905.1

Exit Doors are a critical part of the fire and safety infrastructure of a building. By law there are very specific locking requirements required for Exit Doors.

In years gone by, Fire/Exit Doors were viewed solely for use as emergency Fire Exits, but that view has changed. "Exit Doors" are now used for emergency egress of all kinds - not just fire emergencies.

Accordingly, Exit Doors must comply with multiple codes and requirements. D2.21 (Emergency Exits) and AS1428.1 (DDA / Disabled Compliance) are but just two.

Locks used on Exit Doors – which also include Fire Doors and Path of Travel Doors - are governed by Building Codes of Australia (BCA) Ordinance D2.21. Mostly (but not always) these doors are identified by an illuminated green "EXIT" sign above (or leading to) the Exit Door.

Exit safety is paramount, and includes not only fires, but all manner of emergency situations. Situations such as (but not limited to) fires, gas leaks, toxic chemical spills, personal safety, and even bomb threats.

Local Council Building and Fire Inspectors, and the Fire Brigade, are the most common authorities that police compliance of this regulation. The regulation is complex, with numerous legal grey areas, with the ultimate interpretation falling with the inspecting authority.

There are also requirements within workplace OH&S policy to meet this regulation.Local councils also require compulsory annual fire safety certificates, which also encompass compliance with regulation D2.21.

There are three main categories of Exit Doors:

Fire Door: A Fire Door is a door that enters a fireproof stairway or tunnel. The door itself is made from a special fire resistant material, and has a fire rating compliance tag fitted to the hinge edge of the door. A steel fire resistant door frame is also used.

EXIT Door: An Exit Door is a door that allows an emergency exit from a building. Dependant on its location, it need not necessarily be fire rated, or steel framed.

Path of Travel Door: A path of travel door is a door in the egress pathway leading to or between a Fire Door or Exit Door.

D2.21 Compliance

- The egress opening action of a lock must be a single handed downward lever action. A pushing action is also allowed, and is preferred.
- Internal knobs or turn snibs are not permitted. This provision takes into account the need for an emergency opening mechanism to be operable by people with hand or arm related disabilities, burns to their hands, with perspiring or wet hands, or the aged or infirm.
- The opening mechanism should be capable of being operated by a nudging action whilst dragging an injured or unconscious person to safety.
- Key locking in not permissible on the egress side (inside) of the door.

- Only one lock per door is permissible.
- Locks must be fitted at a height of between 900mm and 1100mm from the floor level

In the case of Fire Doors, the lock must be self-latching and be fire rated in accordance with AS1905.1. A fire rated automatic door closer must also be fitted. Only fire rated hardware may be fitted to fire rated doors.

It is a duty of care to ensure that all exit doors are safe and functional and BCA code compliant.

Lock Heights

Door lock heights on Exit Doors, Fire Doors, Path of Travel Doors, and Disabled Access Doors, now have a standardised lock height of 900mm-1100mm. The exception being locks in Childcare facilities, which may be 1500mm-1650mm high as necessary.

Fire Door Hardware

Fire Doors must only be fitted with door hardware fire rated in accordance with AS1905.1

Fire Door locks must be self-latching and are not permitted to have a hold open feature. It is an offence to prop open or otherwise interfere with the automatic closing action of a Fire Door. Fire Doors must also be fitted with a fire rated automatic (non hold open) door closer. An automatic closing door is essential in controlling smoke, heat, and destrictive back drafts, which could potentially feed the fire.

Locks or hardware that are replaced must be brought up to current BCA compliance. Ie: If a knob style lock is currently fitted, it must be upgraded to lever action when replaced.

Safety

Personal safety comes before security. Security cannot be upgraded beyond the point of a single D2.21/AS1905.1 compliant lock. Non-complaint deadlocks, multiple locks, locking bolts, padlocks or padbolt type fittings, are all considered dangerous, and are not permitted to be used. The BCA code specifically states that personal safety takes precedence over security.

Panic Bars

Panic Bars, also known as crash bars or exit devices, are deemed necessary where large volumes of people collect, such as in halls or theatres, where there is a high risk of "Crowd Crush".

Crowd Crush is where a uncontrolled volume of people surge against an exit door in an emergency evacuation situation, preventing the door from being opened, and people being crushed or killed in the process. To prevent this from happening, panic bars burst open in an outwards direction when force is applied,

AS1428.1 DDA / Disability Discrimination Act) Compliance

Emergency Exit Doors must also comply with AS1428.1 The Lock must have a lever handle (or push bar) with specific compliant dimensions. Knobs are forbidden.

- A distance of 35mm to 45mm between the lever handle and door face
- A 20mm return on the end of the lever to stop the hand slipping off
- A fitted height of between 900mm to 1100mm (Same as for Exit Doors, but excludes special uses such as Child Care Centres and Swimming Pools)

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