

# VERSATILE TANKS

.COM.AU

## THE VERSATILE CONCRETE SECURITY FIRESTORM SHELTERS



### **Our fire shelters are an engineered concrete precast structural design.**

Manufactured in a seamless mould in our factory. It is produced using a very high slump 50mpa concrete mix design. This mix design as well as wall thickness and concrete steel coverage offer the insulation under the Building Code of Australia and the AS3600 fire rating 30-90 minutes. Our units are structurally designed to withstand applied loads both on the walls and roof. A rating of 5kpa per square meter follow the standards AS1170. Section 1 to 4. Accessing this standards gives you the option to place earth up against the walls for further insulation or embed the shelters into sides of hills or sloping blocks. Using soil against the walls and roof is recognised as an excellent method of providing insulation from the external fire storms and heat. This method also protects the building material from spalling under

intense heat and stops them from losing their integrity and effectiveness. The use of scoria rock against the walls and on the roof can also increase the insulation.

If you plan to place the fire shelter into a sloping site, It is important that the site is well drained, for example with the use of slotted ag line around the base, leads the water away.

Please note that the fire shelter is not intended to be a substitute for sound safety practice, but a refuge in the event you and your family feel under threat and cannot escape the firestorm.

The unique way the shelter is manufactured ensures there is full coverage of the structural steel cage, no air entrapment in the concrete this assists in preventing spalling of the external unit especially when exposed to such extreme heats in fire storms. We offer the option to paint the unit with an approved fire resistant and fire

retardant paint. This paint protection offers a further resistance to fire penetrating the walls. The paint we use is called FF88 and states it can withstand extreme heats of up to 2000 deg F for up to 2 hours. ([www.firefree.com.au](http://www.firefree.com.au))



### **Fire Doors and Hardware**

All doors, smoke seals, jambs, hardware and frames are all 240 min fire rated unless requested otherwise.

The external fire doors are solid fyre core doors with a further steel coating inside and out.

Fire Inspection doors are manufactured to AS2688-1984 and installed by a Commercial door company as per AS1851.1 Part 7 -1984 all doors come with fire door certificates..

Door hardware consists of classroom lever door sets (door set that prevents internal locking

inside the shelter) which offer 4 hour fire resistance plus tested smoke leakage rates to AS1530.7 or the requirements of building code of Australia (BCA) 2004.

The fire door includes a fire rated vision panel, fully certified to Australian standards size 450mm x150mm(nom), 6mm wired glass, clear in appearance, 240 min fire rating maximum 65000mm sq visible, grade B safety glass (approved for use in fire doors)

Perimeter seal around the fire door is a Raven RP10 multi finned smoke seal which conforms to BCA specs. C3.4 standards as well as AS1530.7

At the base of the door a 2100 drop down smoke seal is surface mounted at the base of door .The bottom smoke seal is spring loaded to lift clear of floor as soon as the door leaf is opened by a few millimetres. It is operated automatically by pressure against the steel door jamb.

Our Fire Shelters are only a refuge from fires until it passes over. If you plan to stay longer in the fire shelter it would be recommended to have accessible to everyone in the unit a oxygen backup would be advisable. Acceptable levels of Oxygen concentration in normal air is between 19.5% and 23.5,% this will reduce if 4 or more people plan to stay in the shelter for long periods of time..

IF WE CAN BE OF ASSISTANCE  
PLEASE GIVE US A CALL ON 1300 783 344

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**Versatile by name Versatile by nature**