

CAPABILITY GUIDE FIRE & EXPLOSION

TestSafe Australia has established an international reputation in fire and explosion testing, research and accident/incident investigations.

Our test facilities are also available for product development or investigation projects. Our services include the following:

FIRE AND EXPLOSION TESTING

Explosion Resistance of Structures

Determination of the explosion resistance of mine ventilation stoppings (walls) at full scale.

Explosibility of Dusts, Gases, Vapours

Measurement of explosion hazard of dusts and gases to ISO 6148 including maximum pressures and rates of pressure rise.

Analysis of Smoke Toxicity

The chemical composition of smoke is analysed using state of the art techniques.

The potential toxicity of the components of smoke is assessed.

Flammability of Structures

Full scale Fire Gallery for the testing of structures and installations.

Flammability of Materials and Products

Measurement of the flammability hazard and properties of materials such as plastics, rubbers, composites, hydraulic fluids, gases and vapours.

Flame propagation testing of insulated electrical cables and conveyer belting

Fire and Explosion Suppression and Extinguishment Systems

Hand held fire extinguishers are rated against "A" wood, "B" flammable liquids and "F" fat fires.

International standard tests on the effectiveness of manual and automatic explosion and fire suppression systems for room and enclosure fires and explosions, eg sprinkler systems and active detection and explosion suppression systems.

RESEARCH AND CONSULTANCY

TestSafe personnel are available to undertake funded research into all areas of fires and explosions.

ACCIDENT AND INCIDENT INVESTIGATION

Accident and Incident Investigations

Fire and explosion accident and incident investigations services.

FACILITIES

TestSafe Australia has a wide range of small and large-scale fire and explosion testing facilities, equipped with state of the art instrumentation.

Subject to safety requirements our facilities are also available for hire, both with and without TestSafe personnel, and include:

Full Scale Explosions Gallery

- available for testing and research into gas/air explosions and their interaction with structures.

Fire fighting training ground

- with hot fire, breathing apparatus, confined space training facilities and lecture rooms.

Fire Extinguisher Testing Ground

- for rating of hand held fire extinguishers against "A", "B" and "F" class fires.

Fire Tower

– used for testing flammability of cables used in mines, high-rise buildings, and marine applications. International and Australian Standards.

1000 litre ISO 6184 Explosion Chamber

- for testing explosibility of dusts, gases, vapours and mixtures.

Full Scale Fire Gallery

- available for testing and smoke propagation research. Simulates fires in mines, roadways, transport tunnels and shopping malls, also rooms under ventilation. Facilitates measurement of fire and smoke spread.

Large, open, secluded and secure areas

- for training, testing, filming and construction of prototype structures etc.

TestSafe Australia is an independent testing authority operating under a quality management system to ISO 9001:2000 and is recognized for the majority of its work as a NATA registered laboratory.

For further information please contact

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