**Safe and vault types**

Safes and vaults are generally split into three distinct categories.

These are:

* + burglary resistant
  + fire resistant (documents)
  + media (data) safes.

Hybrid safes that cross between fire resistant and burglary resistant provide a level of delay from fire and theft.

The majority of safes will fall into one of the above categories, with little cross over to other categories. A burglary-resistant safe should not be used to protect documents or media from fire, just as fire safes should not be used to protect cash.

**Burglary-resistant safes**

Burglary-resistant safes are primarily designed to protect valuables from physical attack. They are generally of solid construction, with thick walls designed to resist various physical attack methods.

The materials used to manufacture them are usually good conductors of heat so they generally offer minimal fire resistance.

**Fire-resistant safes**

Fire-resistant safes are designed to protect paper documents (excluding photographs) from fire. They are usually constructed with thin metal walls sandwiched around a soft filling that offers insulation from heat and emits moisture into the safe at high temperature, thus increasing the combustion temperature of paper (to about 170°C).

Fire-resistant safes are usually tested against a standard which specifies the external temperature, time the safe is subjected to the temperature, maximum internal temperature that can be reached and percentage of documents inside the safe that are allowed to be destroyed.

Some standards conduct additional tests such as drop testing the safe midway through the fire test to simulate a floor collapsing.

The thin metal walls are used to reduce the heat retained by the safe after the heat source is removed.

Thicker walls would generally increase the heat retained by the safe and thus increase the time taken to cool down. The construction of fire safes usually provides little resistance from physical attack.

**Media safes**

Media safes (or data safes) are designed to protect photographs, hard drives, optical media and other media types from fire.

They are generally an extension of a fire safe in that they offer the same amount of fire resistance but with extra conditions.

The maximum internal temperature that can be reached is much lower (around 50°C) and the humidity must remain low. This is because moisture and heat corrupt or destroy data carriers.

The achievement of the low heat, low humidity safe is usually accomplished by inserting a special box inside an existing fire safe or by building it in.

A water-resistant seal ensures that water used to extinguish the fire does not affect the contents.

Fire-resistant and/or data safes that are measured against standards generally offer little protection from physical attack.

**Hybrid safes (burglary and fire resistant)**

Hybrid safes are generally manufacturer rated and will offer a level of delay from fire or theft.

These are usually achieved by fitting a burglary-resistant safe with seals around all openings that expand with heat. As the safe is still primarily designed to resist burglary (with thicker walls), the fire resistance is lower than that of a rated fire or media safe.

**Vaults**

Vaults or strongrooms are rooms designed to provide the same delay for the door and walls. These are used where a high storage capacity is required.

Manufacturers offer either modular or base building construction, depending on requirements. They are normally designed and manufactured by safe manufacturers.

**Cash ratings**

Many manufacturers rely upon insurable ratings that are accepted by insurance companies if there is a loss. Insurable ratings are normally stated as supported or unsupported, suggesting whether or not an alarm system is providing adequate protection of the safe or vault.

These insurable ratings are a good indication of the security offered by the safe – the higher the value the higher the security. The insurable rating of the safe should reflect the value of the contents being held.

In New Zealand, most manufacturers will use insurable ratings in lieu of a recognised standard