



Raven has a large range of intumescent fire seals to suit the OEM and retrofit aftermarket. Intumescent seals are predominantly used in door assemblies manufactured by fire door fabricators where they incorporate Raven intumescent seals into the fire door set prior to leaving the factory.

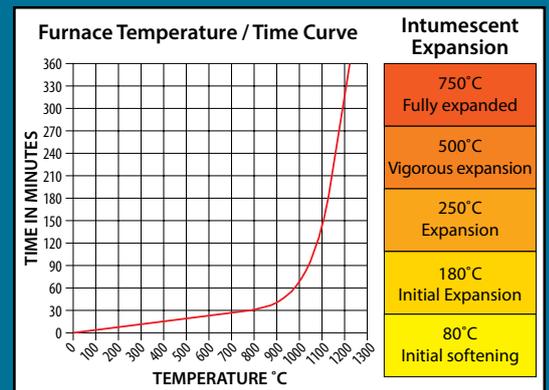
Used in fire door assemblies of timber, steel or composite construction, Raven intumescent seals expand rapidly to many times their original size upon contact with fire or hot gasses above 200°C. Once the intumescent activates it concentrates pressure in confined spaces, exfoliates slowly to protect itself and has good insulation properties. When correctly positioned in the door leaf or door frame margin, the intumescent prevents the passage of flames and superheated gasses from travelling from one compartment to another.

Unlike sodium silicate based intumescent used by some manufacturers, Raven's unique formulation is unaffected by water, making it ideal for applications in damp or humid environments. Raven intumescent is clean, non-toxic and displays outstanding durability and reliability.

When specifying intumescent seals, their primary function is to upgrade fire resistance and maintain the integrity of a fire rated door assembly. Intumescent fire seals are also used in fire engineered solutions by fire engineers.

**Important:** In occupant life and safety situations such as "Smoke Door" applications, refer to Raven Smoke Sealing Systems for smoke doors and fire rated doors. Raven certified smoke sealing systems are necessary to help protect occupants within rooms from life threatening smoke in a fire emergency. Raven smoke sealing systems are tested for ambient and medium temperature smoke up to 200°C on smoke doors and fire rated doors. In almost all building fires the ignition point of a fire is a long way from the building occupants, however, toxic ambient and medium temperature smoke can move quickly from the primary source. Refer mandated building codes, i.e. Australian NCC Specification C3.4.

*Note: Expansion rates may vary between products. The shown graph is a guide only.*



Intumescent fire seals should be fitted as shown in the following typical examples.

## 30 Minute - Fire Rated FRL-/30/- and FD30

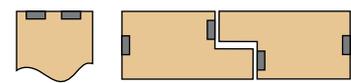
Single Door RP1004, RP76 or RP76Si, UK/EU RP1504 Seals.



Pair of doors with square meeting stiles RP1004, RP76 or RP76Si, UK/EU RP1504, RP2004, RP3004 or RP63 Seals.



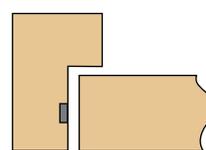
Pair of doors with rebated meeting stiles RP1004, RP76 or RP76Si, UK/EU RP1504 Seals.



Pair of doors with rounded meeting stiles RP1004, RP76 or RP76Si, UK/EU RP1504 & RP2004, RP3004 or RP63.



Pair or single doors RP1004, RP76 or RP76Si seals UK/EU RP1504 seals. Fitted to head & jambs.



*Note: In meeting stiles where seals are opposite each other, always fit an intumescent pile/fin smoke seal opposite a plain intumescent seal.*

## 60 Minute - Fire Rated FRL-/60/- and FD60

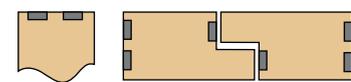
Single door RP2004, RP3004 or RP63 for UK/EU 3004 seals.



Pair of doors with square meeting stiles RP2004, RP3004 or RP63 for UK/EU 3004 seals.



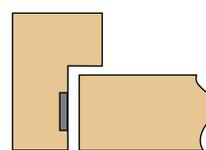
Pair of doors with rebated meeting stiles RP1004, UK/EU RP1504 seals.



Pair of doors with rounded meeting stiles RP2004, RP3004 or RP63 for UK/EU 3004 seals.



Pair or single doors with RP2004, RP3004 or RP63 seals fitted to head & jambs for UK RP3004.



*Note: In meeting stiles where seals are opposite each other, always fit an intumescent pile/fin smoke seal opposite a plain intumescent seal.*