How Is Dubai Changing Fire Safety Testing?

Dubai authorities have amended their building fire safety requirements to oblige all suppliers and manufacturers to have their products tested by a government-owned laboratory. Previously, such testing could have been carried out by private facilities, but any company relying on such an arrangement will be required to obtain government-approved certification by October.

The move is part of a drive to enhance the safety of Dubai's high-rise buildings, of which the emirate has many. Elements such as doors, cables, ducts, sprinklers, alarm systems and cladding are believed to be a major contributor to blazes, with the latter of particular concern. As such, it makes sense to standardise the testing regimes to ensure public safety.

Fighting fires

It's widely known that inadequate cladding and faulty wiring are two of the primary causes of fires in buildings. Given that Dubai is home to a plethora of skyscrapers, such blazes are not infrequent and the number of people potentially exposed to injury or death as a result is high. Just last November, a 35-storey high-rise in Downtown Dubai caught fire, which resulted in extensive damage to its exterior cladding.

Thankfully, Emirati authorities are now confronting the issue head on. Ensuring the materials which go into the construction of such buildings, as well as smaller edifices like villas and warehouses, are up to scratch is of paramount importance. By standardising tests, and keeping a fingerprinted record of all materials on a central database, the authorities can guarantee that no new buildings contain unsafe materials.

Rigorous procedures

In order to get a certificate of compliance, the materials are subjected to extreme temperatures and their ability to withstand heat, fire and smoke is measured. Since most fires begin indoors and reach the exterior of the building through the windows, the cladding must be capable of preventing flames from exceeding 3m above the window or 1.5m to either side of it, while temperatures cannot exceed 537°C at those distances, either.

The Emirates Safety Lab has already conducted over 300 such tests in the first five months of 2023. Since the updated regulations are inconveniencing suppliers and manufacturers, the cost of the initial test will be borne by Dubai Civil Defense. However, should the materials fail, the expense involved in any subsequent tests must be paid by the company in question.

Sharjah following suit

Dubai isn't the only emirate intent on stamping out unsafe building materials. The local authorities have already identified over 200 buildings where the cladding is flammable and must be replaced. Work began to do just that on 40 high-rise buildings in April, with many more expected to follow in the months ahead.

Across the country, aluminium composite-panel cladding has already been banned (in January 2017) because of its flammable properties. As such, the projects by both Sharjah and Dubai are geared towards tightening the safety regulations of new buildings and enhancing the properties of old ones.