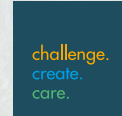


Building fire safety challenges should be eliminated from the start.

DESIGNING FIRE RISK OUT OF BUILDINGS



KNAUFINSULATION

"There is no reason why anyone involved in a building project should have to assume responsibility for any potential fire risk when materials exist to mitigate that risk."

Siân Hughes, Director of External Affairs

Buildings and fire safety continue to make headlines around the world. And after every blaze, with depressing regularity, the same questions are raised. Why was the building at risk? Were fire tests sufficient? Was workmanship to blame? And, how can we stop this happening again?

The lessons learnt from previous experiences encourage us to consider fire risk at the earliest stages of any building design. The use of non-combustible materials firstly reduces the possibilities of a fire occurring and secondly prevents fire spreading, keeping fire risk at a minimum.

Take the issue of workmanship, for example. What guarantees are there that a project will not be undermined by careless installation or a lack of experience resulting in a fire?

And what about work after building completion? Facades do not stay pristine, they are constantly altered and a stray drill hole could spark a serious problem.

Then there is the challenge of tests. Recently, questions have been raised about how laboratory tests can truly reflect the safety of materials in real world situations, where the installation is not always carried out by an expert.

There are already enough safety issues around the way contemporary buildings are designed without adding extra fire risk. Taller constructions, lighter cheaper materials, more underground facilities and wider internal spaces have all contributed to the speed at which a blaze and smoke travels through a building compared to a traditional construction many years ago. Fire safety must be designed into buildings from the start.

CREATING SOLUTIONS THAT HELP – INSIDE AND OUT

BUILDING FACADES

For the outside building envelope our range of non-combustible Mineral Wool solutions can be tailored to the individual needs of any application. In Europe, particularly, we are seeing more and more stakeholders choosing non-combustible solutions from the start to ensure peace of mind.

FLAT ROOFS

Flat roof fire regulations vary from country to country. They may fail to cover fire resistance from the inside out and only focus on external sources in some countries, while others demand non-combustible materials in flat roofs of public buildings, such as schools. Fire risk in ceiling voids should be designed out from the start using non-combustible solutions such as our Mineral Wool.

SAFETY DOORS

Schools, hospitals, hotels and any public building must have safety designed in. Our DRS Fire Board is ideal for fire-resistant doors because its insulation core features high-density Rock Mineral Wool which is A1 non-combustible and delivers supreme fire-resistance performance in the range from 30 to 120 minutes. The board is ideal for components that require high temperature tolerances such as fire screen doors.

GARAGES AND BASEMENTS

In 2018, a blaze in a UK multi-storey car park destroyed 1,400 vehicles – demonstrating how garages and basements are vulnerable to fire. Our Heraklith Wood Wool offers EN1365-2 A2 class reaction to fire. When combined with our Mineral Wool, it provides a protective fire shield that does not produce burning droplets during a blaze and an attractive appearance that is robust enough to absorb the impact of carelessly opened car doors.

SANDWICH PANELS

The use of prefabricated sandwich panels in non-residential buildings – such as data centres, logistic bases or warehouses – is increasing. Our OEM division provides customised Rock Mineral Wool PBE insulation cores for sandwich panels that meet the highest possible A1 fire classification and provide excellent fire resistance in the range from 60 to 120 minutes. Tailor-made solutions are available for facades, roof elements and partition walls.

HVAC SYSTEMS

Heating, ventilation and air-conditioning (HVAC) systems in public buildings must offer the highest fire resistance to prevent a blaze spreading room to room. Certified in line with EN 1366-1 standards and approved by the Association of Swiss Cantonal Fire Insurance Companies, our Fire-teK® insulation solutions have been created specifically for HVAC systems.