FUTURE PROOFING

ROCK DOOR®

The Next Generation Rockdoor.

Test Results

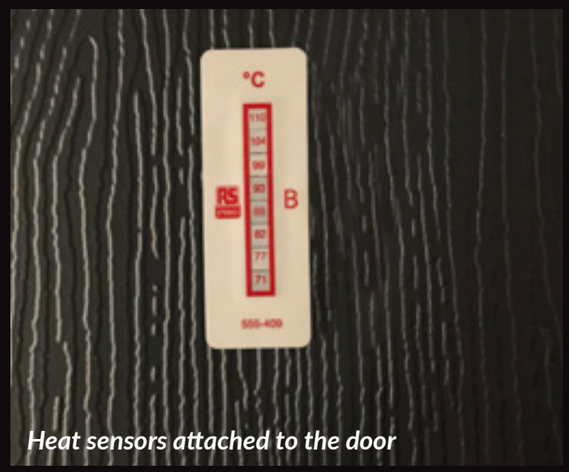
Environment Simulator

Rockdoors new Environment Simulator tests our door to the extreme

Future Proofing Rockdoor

The challenges for all door manufacturers following the extreme temperature fluctuations of 2018 were stark. Exceptionally hot and colder temperatures meant all doors had to withstand stresses and strains.

When it's cold outside and central heating is keeping everything inside warm, then there is a lot of pressure on the door, and the same is true when it's hot outside and cooler inside. Whether it's a timber, GRP or PVC door, they all want to move. The challenge of this led us to redesigning the inner frame to feature a stronger Aluminium box section. But once developed, we wanted confidence that the next generation Rockdoor was future proofed, so we commissioned a purpose-built Environment Simulator.



Heat sensors attached to the door

Heating elements inside Environment Simulator

Environment Simulator

We wanted to take our door from one extreme temperature to another to ensure it could resist everything a freezing winter or blistering summer could throw at it. It then allowed us to accurately test our doors knowing what temperatures they have been subjected to and measure the results. The heavily insulated steel test rig features several sensors to precisely record the temperature of the 25 powerful heat lamps which are capable of generating extreme heat to replicate solar heat radiation and solar collection. Additionally, the sensors track the cold air fans capable of dropping the temperature to freezing conditions.

The Next Generation Rockdoor.

Test, Test and Test Again

A Rockdoor waiting to enter the Environment Simulator

A Rockdoor in position and ready to be tested to the extreme

Test, Test And Test Again

Subjecting a door to either extreme hot or cold temperatures and measuring the results isn't enough. Of course, doors need to be tested to extreme temperatures, but they also need to be done in incremental stages where the door is slowly increased or decreased in temperature. But it's important to test and measure the results when the doors are heated and then cooled to replicate the natural environment.

Results

Following months of testing where hundreds of doors sets and sashes were taken to the limit, we are pleased to see the results of the new Aluminium box section. Not only does the Aluminium perform far better than Carbon Fibre at stopping bowing, it also allows us to fix all our locking components into the Aluminium inner frame making Rockdoor stronger overall. All doors want to move, the skill is to limit the impact on the performance of the door overall.

Next Generation Rockdoors are guaranteed to withstand temperature fluctuations without bowing to ensure perfect door operation.

The Next Generation Rockdoor Brochure

July 22nd 2019