



cubex<sup>®</sup>

specialist architectural security

**ACOUSTIC CERTIFIED Steel Doorsets**



# Acoustic Certified Steel Doorsets

## Who uses Cosmos™ AC – Acoustic Certified Doors?

As specialists we have been manufacturing for the sectors using Acoustic control since 2005. Our ability to provide effective Acoustic Doors and Barrier systems, yet maintain quality product aesthetics has given us leadership in Acoustic Control for a huge range of projects. From Ministry of Justice (MoJ) and Ministry of Defence (MoD), through to Power Stations, Vehicle Manufacturing, Cinemas, Studios and Hospitals where Acoustic Control is essential, we have proved our expertise and support to our clients.

## Do Cosmos™ AC – Acoustic Certified Doors have a Warranty?

Every door has a 10 Year Warranty from the date of installation as standard, giving you peace of mind in your investment. All Warranty validations are in accordance with Cubex Terms & Conditions, and Extended Warranty arrangements are available by application.

## What security features will my door come with?

We build products to the specification of the Client, and according to security standards. We also work closely with the Client Architects and with our Acoustic Consultants to ensure the secure product is delivered for the right aspects and purposes, and ensure the security rating required is delivered. All doors are manufactured to BS EN Standards.

## Are the Cosmos™ AC – Acoustic Certified Doors thermally efficient?

Yes we have worked hard to constantly improve the U-values of our doors. The U-value signifies the thermal efficiency of the door, and we have achieved some of the lowest values in the marketplace meaning that your Client can rest in a warmer and more economical environment. Thermal

efficiency can be affected by the door composition, for example – If your door has a Vision Panel as part of the door composition, in most cases this would weaken the Thermal efficiency of the door. Cosmos™ offer an Acoustic Certified Vision Panel up to AC40dB, which will provide your answer to complete Thermal efficiency.

## What hardware is available on Cosmos™ AC – Acoustic Certified Doors?

We are able to supply a full range of hardware to suit your chosen door design. We offer a suited approach which means that all hardware matches whatever you order. Popular architectural finishes are Stainless Steel and Satin Stainless Steel (SSS). Our Technical Team will support you on available options with Cosmos™ AC – Acoustic Certified Doors.

## What Paint finishes can we have on Cosmos™ AC – Acoustic Certified Doors?

We operate a Polyester Powder Coating plant, and have a reputation for our finishing that we are proud to tell you about! Your client can have any colour of their choice, and we hold a broad range of stock RAL finishes for you to choose from. Cubex are also recognised for their capability with specialist and bespoke finishes across a huge cross section of Industry demand.

## Cosmos™ Fire Rating (FR)

Fire Rating may be key to your project in addition to Bullet Proof requirements - Cosmos™ can incorporate Fire resistance up to 120 Minutes (FR120) in your door composition.

**Call our Technical Team on + 44 (0)151 422 9111**

## Understanding Acoustic Rating

AC30 (30 Rw dB)	AC35 (35 Rw dB)	AC40 (40 Rw dB)	AC45 (45 Rw dB)	AC50 (50 Rw dB)	AC55 (55 Rw dB)	AC60 (60 Rw dB)
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There are two types of Acoustic testing, and we use both types of Acoustic testing as we work in such a broad spectrum of environments. The two test types are known as Laboratory Test and Field Test. You can identify the Test Method by the Acoustic Rating which is formulated. The number represents the tested Decibel (dB) level, and the product is certified as to affect a level of noise by this number of Decibels. So if you had a machine that gave out 100 dB in a room, and you fitted a **Cosmos AC – Acoustic Certified Steel Door** to the room, the door would reduce the outgoing Decibel level by 60 dB meaning the outer Decibel level would be reduced to 40 dB. LABORATORY TEST readings are formulated with 'Rw' and FIELD TEST readings are formulated with R'w.

**LABORATORY TEST** - To ascertain the level of sound isolation of an existing assembly, there are two approaches. If the original drawings are available, we can look up the designed assembly and determine the intended sound isolation by comparing the assembly to existing Laboratory tested assemblies. These laboratory tested assemblies provide a single number rating called the Sound Transmission Class (STC) which tells us how much sound the assembly is supposed to block. The higher the STC rating, the better the sound isolation. Although the STC of the designed assembly provides a good starting point for investigating the problem,

existing buildings aren't always constructed exactly as designed. Because of this, a field test will provide more accurate information on how the assembly performs.

**FIELD TEST** - A Field test provides the Apparent Sound Transmission Class (ASTC) which is typically 5-8 points lower than the STC rating. Testing according to recognized standards is the best methodology to make sure that the test is done in a repeatable and reliable way. This involves using an amplified speaker to produce broadband noise in one room (source) according to specific internationally recognized standard, usually ASTM E336. The sound level is then measured in the source room and the adjacent room (receiver). We then determine the reverberation time in the receiver which allows us to calculate the sound absorption and along with the source and receiver measurements, the resulting ASTC of the assembly. If the field tested assembly is significantly lower than expected, we know that it wasn't constructed as designed. If the assembly tests as we expect it, we know that the assembly wasn't designed to provide enough sound isolation for the current use of the space. Regardless of the results, in an existing building, an ASTC test is a useful tool for diagnosing a noise transmission issue between spaces.