

The Arc

CA Builds The Arc at Bury St Edmunds



Project type: New Build
Scope: Specialist Cladding
Product: Execa bespoke architecturally engineered panels
Architect: Hopkins and Associates
Area: 3,200 m²
Materials: Sand-Cast Aluminium Panels

CA Group has just completed one of its most complex projects ever – a cast aluminium façade on The Arc retail development in Bury St Edmunds.

The project features 3,200 m² of sand-cast aluminium panels made to order by CA's bespoke architectural engineering division Execa, and is thought to be the first time a building has ever used such a method for a façade. The 2805 panels are of 254 different types, and form a free-flowing curved surface to give a futuristic exterior to the building. The building features a shiny metallic finish made up of thousands of diamonds, which are uniformly spaced to allow subtle illumination from behind.

Nick Belden, the head of the Execa division, explains the complexity of this unique project:

"In order to create this amazing building we needed to utilise our state-of-the-art



3D surface modelling software, similar to that used in the automotive and aerospace manufacturing industries. Architects work with very sophisticated CAD packages, and we needed to use a system that could accurately reproduce their designs, and engineer complex forms and structures. The whole process from design to manufacture has been paperless."

"The architects for The Arc, Hopkins and Associates, came up with the idea of this façade treatment, and we investigated lots of different manufacturing process.

The sand-casting method, creating molds out of sand and setting with epoxy resin was deemed to be the most effective method of cresting the many complex forms and shapes. The plates were coated in a clear protective lacquer to give a durable and attractive surface."

Behind the scenes, CA has also applied its expertise in creating a simple and robust fixing system, in order to make life easier for the cladding contractors on site. As a result, the cladding phase of the project has run on time and on budget.

The Arc

