

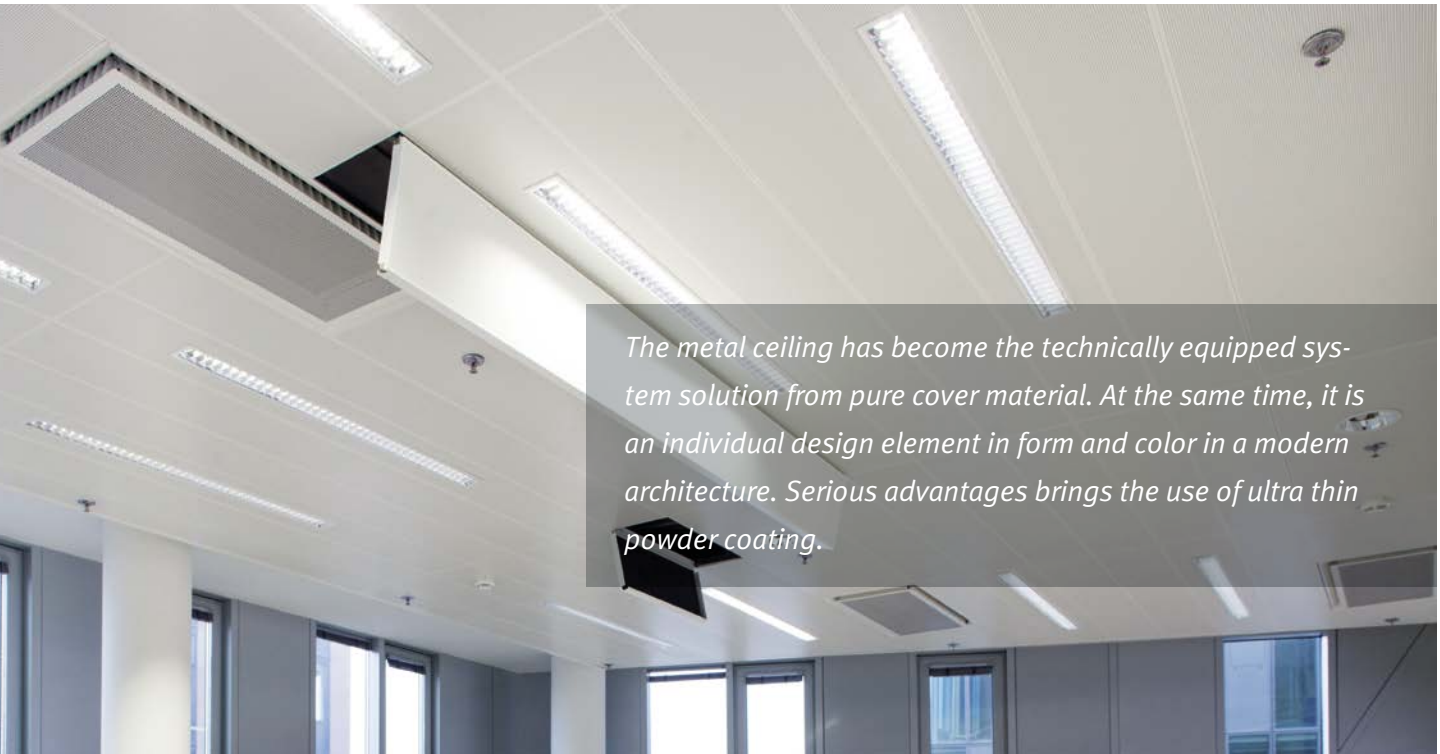
Material savings and quality improvement

THIS POWDER COATING IS USED FOR THE CEILINGS

M.C.I. Metaldecken GmbH from Austrian Neutal produces high quality multi function metal ceilings that are installed primarily in the German-speaking region and in the Benelux. "We don't produce standard ceilings, we leave it to the mass producers. Our system solutions are designed, manufactured and equipped completely with the required technology specifically for customers. Thanks to our involvement in the B + M Industries Gruppe we offer tested complete systems for the drywall only company", explains Hans Werner Wild, Operations Manager of M.C.I Neutal.

The experts at M.C.I. participate in the early stages of a planning of new constructions or construction modifications and together with the architects develop optimal solutions. These include advanced technologies for cooling, heating and lighting. The elements are cleverly applied in a modern concrete architecture for acoustic insulation.





The metal ceiling has become the technically equipped system solution from pure cover material. At the same time, it is an individual design element in form and color in a modern architecture. Serious advantages brings the use of ultra thin powder coating.



Varied areas of use include in one project several hundreds of different formats of metal panels. "The architects realise their design ideas for interiors more and more with help of ceiling and wall elements. We created for example 2000 different, shiny black cassettes individually drawn and manufactured for the adventure and shopping centre „Höfe am Brühl“ in Leipzig. At the same time we integrated entire systems such as lighting, ventilation, sound, heating and cooling and security components", says Hans Werner Wild.

Optimal solution for versatility

Different shapes, punched pattern and integrated systems require an optimum and versatile powder coating. Earlier, it has been required to maintain a thickness of at least 100 to 110 µm, because otherwise, they feared that the cover will be missing. Today, the panels at M.C.I. are coated with 55 to 70 µm. At the corners a value 90 µm is not exceeded thanks to an ultra thin powder coating (UDS), what prevents a build-up of edges, and has a positive effect on a quality.

As powder coating supplier, KABE Farben is particularly required, says Klaus Utz, sales representative Austria: "The architects use metal ceiling panels in all imaginable shapes and color combinations. So, it may happen that a specific Green will be required in a short term. As a medium-sized company, KABE Farben can the UDS powder quickly adapt to such special requests."

One was sceptical in case of M.C.I. as it was considered for economic reasons to switch from the proven wet coating to powder coating. Especially once pretty bad experiences had been made with different manufacturers at a plant in Hungary with mixed standard powder coatings.

Ceiling panels, ventilation systems and lighting units connect to an architectural work.



Ceiling tiles are not only design elements, but contain a complex heating, cooling and lighting technology.

"When we decided in Burgenland to equip the Neutal factory with a modern powder coating plant, from the beginning we were carrying out experiments with UDS powder coatings by KABE Farben. These powder coatings were very close to the smooth wet paint surfaces. During the attempts we realised that KABE Farbe as a flexible, medium-sized company is the right partner for us", says Hans Werner Wild.

Significantly better look

M.C.I. saves with UDS powder coatings material up to 30 percent. In addition to this main effect, a new powder coating brings further advantages. Experts from the industry know that despite continuous production and coating during installation, suddenly one or more ceiling panels can have a different optical look. A color of the plate and adjacent cassettes appear not equal to the Viewer. Often, this requires exchanging those parts associated with expenses and costs.

But not the color is wrong, but the surface of the coating to the surface of the perforation (hole portion, which is deposited with dark acoustic membrane). The more fined-mesh the arrangement and the smaller the holes, the coating is more problematic. Earlier a perforation of 2.5 to 3.0 mm was a standard, M.C.I. produces nowadays diameter of 1.0 to 1.5 mm, with very high open cross-sections (proportion of hole in the surface). The powder coating builds up more and more on the edges, multiplies and shrinks the hole diameter slightly. This shift of the surface proportions of powder paint surface (white) to the perforated surface deposited with acoustic fleece causes a visual color change of the cassettes from white to grey.

UDS powder coating can here fully display the advantage of reduced thickness. An establishing edge is reduced and lower optical changes occur. UDS powder saves at M.C.I. not only a material, but also significantly improves the quality of the surface.

Another advantage of the UDS powder coating is visible in a fire protection area, which must be fulfilled by metal panels in the architecture. "The calculation is simple. Less powder coating means less plastic on the panels, which in turn reduces the risk of fire and increases fire protection. With UDS powder coating we can today meet the highest fire class A1. That would not be possible with a standard powder coating", explains Hans Werner Wild.

Increasingly more functions are integrated in panels such as lighting, acoustics, air-conditioning and fire protection. The ultra thin powder coating produces a much better efficiency thanks to the reduced powder coating and allows a reduced energy consumption.

The ultra thin powder coating has proved at M.C.I. as a versatile solution that saves not only powder coating, but makes the functional systems more efficient, versatile and attractive. M.C.I. is able each so individual request of architects in objects form and color to fulfil.

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Hans Werner Wild, plant manager M.C.I. Neutal (right) and Klaus Utz, KABE Farben powder coatings with a manufactured according to customer specifications and coated ceiling panel.

M.C.I. METALLDECKEN GMBH
NEUTAL

M.C.I. Metalldecken GmbH from Neutal is a 100% subsidiary of the Baustoff+Metall GmbH Vienna, a group of the family Kristinus. Baustoff+Metall Gruppe combines the power and the service thoughts of a family business evolved to the market leader in the dry construction specialist. With 86 locations in 17 countries in Europe, with the innovation-Turbo its own industry group, the B + M industries, the technically demanding products for the drywall developed and produced.

