

TECU®

Copper designs.

Project Consulting Magazine

#7 [GB]

KME

**New Values
in Copper**

Win an
Apple
MacBook Air!



Low copper prices, increasing demands on sustainability, modern, economic and environmentally-compatible products – all excellent conditions for aesthetic design, renovation for a safe future and sustainable planning with TECU®.

The times are on the side of new values in copper. For a long time, the use of copper products has been perceived as an expensive option. Now there are even more opportunities to plan with the natural, long-lasting, characteristic TECU® surfaces and their many diverse applications. The newly-developing sense of real investment values is taking this on board too: maintaining value by renovation and modernisation, guaranteeing value stability by using sustainable materials. TECU® products offer ideal conditions for this, as the examples on the next pages show.

**Low
copper prices**

Win an
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We want to thank you for your interest in our TECU® products by giving you the opportunity to win a valuable prize in our prize draw. To take part, all you have to do is fill in the card in the centre of this brochure, answer the prize question and send it to us.

With a bit of luck, you could win an **Apple MacBook Air**. Valuable working aids, planning tools and design examples for perfect results using TECU® have already been installed.

Good luck!



You can get further information on design, renovation and modernisation with TECU® and sustainable use of TECU® products from: TECU® Project Consulting, www.tecu.com

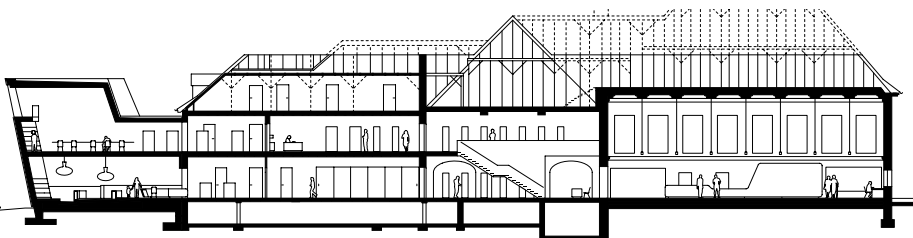
Luckenwalde Town Library, D
Architects: ARGE WFF, Berlin
Contractor: Klempnerei Neß, Berlin
Cladding: TECU® Gold



TECU® Gold: MEDIA WORLDS IN A GOLDEN TOWER

About 50 km to the south of Berlin, as part of extensive renovations of a former railway station an annex was incorporated into the existing buildings that offers an inviting perspective to the younger generation. Behind the glittering TECU® Gold façade are the children's and youths' sections of the buildings that are now used as the town library.

The new annex created a self-confident landmark, like a logical conclusion to the successful renovation work that had gone before in the entire group of buildings. The structural shell, which is tilted on two axes and clad completely with shimmering TECU® Gold Shingles, creates a new spatial situation on the station square with an impressive presence and an eye-catching view also from the neighbouring motor street that connects the station with the town centre. The annex is a conspicuous indication of the new function of the former railway station: it stands in the town's public area like an over-dimensional showcase. In spite of the marked contrast to the old building, the sensuous value of the material is a perfect complement to its solidity. A very important aspect of the façade material – besides its durability and economy – is its ability to create different appearances depending on the light and the weather. Because of the reflecting surface and the varying inclinations of the building, completely different atmospheres and moods are created at different times of the day. The continuous weathering of the material has a similar effect: as time passes the surfaces will change in various ways depending on the angle; so the building will develop a very individual and lively façade. Corresponding to the function of the building, special interior spaces were created that break away from the orthogonal structural principle of the railway building – just like the younger generation breaks away from the cosiness of the home. The children's library on the ground floor offers open reading and play areas, the youth library upstairs, however, is more of an introverted place, providing ideal spaces for mind expeditions in literature, films and music.





TECU® Classic: CLASSIC FUGUE IN COPPER

A concert hall was constructed on the grounds of Grafenegg Castle near Vienna that sets benchmarks not only due to its outstanding acoustic qualities. While the façade, which is clad with TECU® Classic, still gave the opening ceremony a „glittering“ framework, the natural oxidising surfaces are now beginning to shape a lively and individual building envelope.

The venerable castle of Grafenegg is highly regarded among music connoisseurs; for many years it has hosted high-quality concert events on its grounds. Since extensive building works were completed in 2008, Schloss Grafenegg has been developed into an internationally renowned cultural venue. The architect duo schröder schulte-ladbeck, based in Dortmund and well-known for designing concert halls and for unusual solutions, once again emphasised their extremely sensitive commitment to the existing buildings and the surrounding grounds. The new building fits perfectly into the park grounds and also sets convincing acoustic benchmarks. Keywords for the design concept, which is based on a musical fugue, were form, number, dimension, proportion, material and colourfulness. The latter found its most significant expression in the design of the building's façade, which originally was to be carried out in pre-weathered copper to match the existing materials of the historical structure. However, the cladding that was eventually chosen, made from TECU® Classic copper sheets, gave the colour aspect an appropriate temporal component: at the opening ceremony the façade shone brightly in copper red, but soon the weather-related changes in the surface that are typical of copper caused the sheets to develop brown and anthracite hues. Through oxidation the copper has now developed its natural protective coating. Depending on how the light falls, the façade presents itself in many lively shades and the surfaces will continue to change for many years to come – until the symbiosis with the historical surroundings is complete when the surfaces have developed the patina green that is typical for copper.





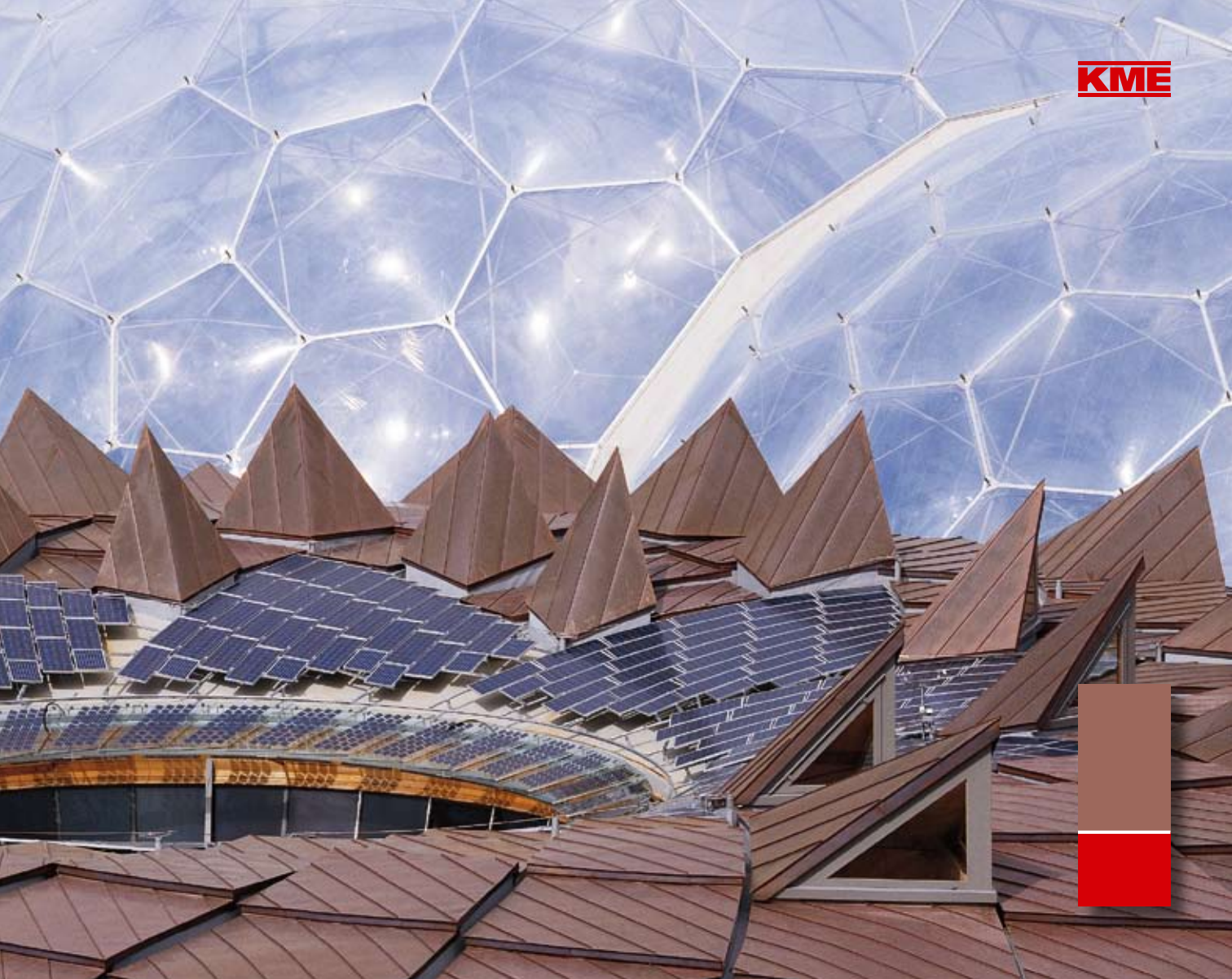
Photo: KWE

From the Garden of Eden
to a gold seal for quality:
sustainable construction
with TECU®



Photo: Andreas Braun

Sustainability is developing as a whole new way of understanding construction values. Proven long-term quality of building materials is becoming ever more important. TECU® copper products can boast first-class projects and some of the highest awards for sustainable construction.



TECU® products have been the products of choice for years now wherever the focus is on sustainability. An example: it was not just the ideal ductility of TECU® Classic that appealed to the firm of Nicolas Grimshaw & Partners as a material when they were planning an environmental learning centre for the Eden Project in Cornwall; since the only materials to be used had to be long-lasting, natural and ecologically safe products, long life and resistance to wear were just as important as unlimited recyclability. The Eden Project team even visited KME in Osnabruck at the time to see for themselves how environmentally harmless the production of TECU® products was. Today, standard environmental product declarations make decisions much easier from the outset for the planning of sustainable buildings. EPDs (Environmental Product Declarations), standardised under ISO 14025, include all the necessary data on the environmental compatibility of building materials, at the same time providing information about their efficiency.

TECU® copper products have been declared in this way for several years already, including a product-based ecological balance in accordance with DIN ISO14040 that rates the entire life cycle of the material from primary production of the raw material, through product production, processing, use and recycling. But since the sustainability of a building is not judged on ecological factors alone, the Federal Construction Ministry, together with the German Sustainable Construction Association, has now developed a system for assessing, even at the planning stage, the long-term economic, ecological, technical and socio-cultural aspects of a project. So the German Seal of Quality for Sustainable Construction that is awarded under this system recognises the excellence of the quality of buildings not only for their ecological qualities but also for their value stability and optimum chances in the market – which have especially recently become quite decisive factors again. The first buildings have already been awarded the new seal of quality; the New House of the Region of Hanover has been given a gold seal of approval. TECU® Patina was used as a material in its interior and exterior construction.





New House of the Region of Hanover, Germany
Architects: bünemann & collegen, Hanover
Processors: Hanebutt, Neustadt
Cladding: TECU® Patina

TECU® Patina: A WINDOW ON THE REGION WITH A SUSTAINABILITY TICKET

The Hanover region has built an office building for 300 civil servants in the centre of the capital of the federal state of Lower Saxony. The building has been awarded the Gold Seal of Quality by the German Sustainable Construction Association (DGNB) for meeting the highest demands for sustainable and energy-optimised building. TECU® Patina has been used inside and out to give it a striking appearance.

The new build completes the construction environment comprising essentially buildings from the 1950s with a six-storey triangle with cellular offices and a single-story cube which encloses the regional parliamentary assembly hall. The cubature appears to be inserted into the ground floor by the triangle and extends right to the public footpath. This combination of old and new and interlinking of different levels of the various elements has created a harmonious ensemble of buildings. Materials and colouring have followed closely those of the existing buildings. The basic colour of the clearly-sectioned facade is provided by Portuguese limestone, which contrasts with window breasts in anthracite-coloured granite that appear to enlarge the openings in the facade. The importance of the assembly hall as the seat of the regional parliament is reflected in the colouring, materials and position of its exposed structure, with large-format, pre-patinised TECU® Patina copper panels continuing its cladding in the interior. The high degree of transparency of the facade creates the “Window on the Region”, with the observer’s gaze open from the street right through the whole building to its inner courtyard. The New House has put into practice for the first time in Germany the “energy-optimised” standard of the Federal Ministry for Economics and Technology in a public-private partnership process. The combination of high ecological demands and narrow financial constraints was exceptional, and yet a building has been created that requires some 50 % less energy than conventional buildings – without additional cost. And its exceptional use of uncompromisingly sustainable materials has been recognised with the DGNB Gold Seal of Quality.





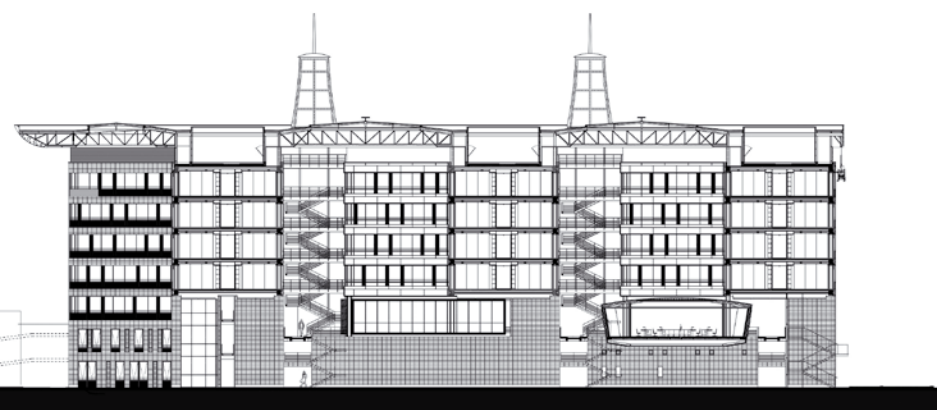


Council of Europe, Strasbourg, F
Architects: Art & Build Architect, Brussels
Contractor: Raimond SAS, Saint Julien de Concelles, F
Cladding: TECU® Patina

TECU® Patina: EUROPEAN APPEARANCE IN A NEW SHADE OF GREEN

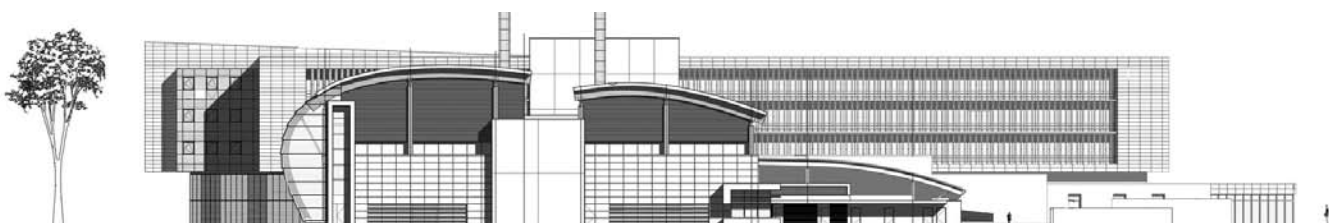
In Strasbourg a new administration building represents the future image of the Council of Europe – modern, effective, efficient and cosmopolitan. In accordance with the philosophy of the Brussels-based architects ART & BUILD, sustainable and environmentally friendly building and a critical choice of materials were basic requirements for the design and realisation of the projects.

Through the specific integration of different functions in one construction the new general office building has created a working and living space with extremely communicative ambiances that illustrates the idea behind the collaborative Council of Europe in an outstanding way. Atriums and inner courtyards are dimensioned so that natural light is used optimally and they also create a buffer zone for a pleasant, peaceful and healthy air conditioning. Above all, the striking patinated copper pavilions clad with TECU® Patina attract a lot of attention. Lively, natural and almost playful, they complement the pleasantly open but adequately intimate atmosphere in the niche areas that characterise the main building and its surroundings. On closer inspection they turn out to be room modules for conferences, meetings and similar events. Like TECU® Patina all other materials used were chosen according to all aspects of sustainability in terms of their manufacture, delivery, processing and further development and ageing. In addition, all technical, ecological and economical decisions made during the planning and construction phases and also during the building's entire operational phase were examined in detail in regard to sustainability. This method of working by Art & Build was especially acknowledged in June 2008. For the new general office building of the Council of Europe the architects received the BEX Award 2008 in the sustainable building category. Each year innovative projects in the field of architecture are distinguished with the awards from the BEX – Building Exchange international conference.





Photos: Art & Build

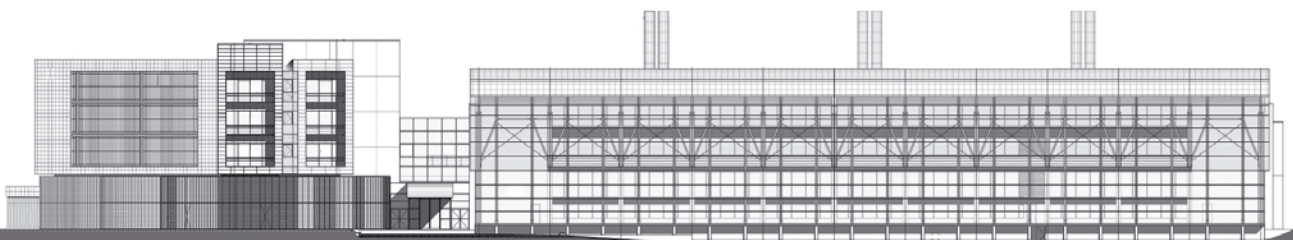


Pharmacopée européenne, Strasbourg, F
 Architects: Art & Build Architect, Brussels
 Contractor: GTG, Marlenheim (F)
 Cladding: TECU® Patina

TECU® Patina: MEDICAL LABORATORY FOR THE FUTURE

The new complex of the European Directorate for the Quality of Medicines & Health Care (EDQM), also known as Pharmacopée européenne, is a three-section building including laboratories, service areas and offices. In addition to other natural materials, TECU® Patina brand copper was used skilfully and very much in the sense of sustainability.

The building's design corresponds to the many different activities carried out in the facilities. The functions of the individual areas are clearly highlighted by the use of forms and the choice of materials. The rounded, extensively glazed façade of the laboratory hall offers a glimpse of the technical-scientific work that is carried out inside and creates a transparent buffer zone around the laboratory units and service areas. This design ideally meets the high demands of modern laboratory management for flexibility: laboratory units, easily accessible from all sides are integrated in a large spatial area that is shielded on all sides. The façade of the office complex floating above the entrance and clad in TECU® Patina copper panels creates a clear contrast to the brilliance of the stainless steel and glass façade of the laboratories. The intensive patina green seems to highlight the purely human use of space in the office areas, which, as opposed to the laboratories, were designed with no consideration of technical installations and entirely according to human criteria. The green copper façade that rises high above the public area in the ground floor in two asymmetric wings uses its signal effect for a self-assured presentation of the building complex that can be seen from afar. Like most of the building materials used for the Pharmacopée, TECU® Patina was mainly chosen based on the criteria of longevity and recycling capability. All the design decisions were made with special consideration of cost effectiveness, energy and water requirements and maintenance expense.



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