



Manufacturer Poligrat, Munich, Germany
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Architecture, Building and Construction

Coloured Sol-Gel Coatings

Several proven colouring techniques are available for stainless steel but some of them have limitations: organic coloured coatings are usually opaque and remove the metallic look; electrochemical coatings are UV resistant but not particularly abrasion resistant and difficult to reproduce precisely; physical vapour deposition (PVD) coatings can be quite hard, but the range of colours is limited. A new colouring technique, Verospectral, avoids these limitations. It is a sol-gel coating, with a very thin layer that is applied in liquid form to a surface and then cured. Once hardened, it is glass-like and hydrophobic - water runs off easily, without leaving traces. It is an inorganic substance, which is not susceptible to ageing or degradation by UV radiation. The technology required for clear coatings is proven and has been used in anti-fingerprint treatments of stainless steel for years. The new Verospectral process now makes it possible to colour these clear coatings. The pigments used are also inorganic and therefore long-term UV resistant. The specific nature of the process ensures that the layer is fully uniform, unlike some earlier experiments with coloured so-gel coatings. A wide range of colours is available in several saturations. The colours can be reproduced precisely even years after the delivery of the original batch, making it easy to replace, for instance, damaged façade panels. The new process makes stainless steel a candidate material for applications in which colour is requested and the traditional techniques are impractical.

