FUNCTIONAL COATINGS

The so-called ultra-thin coating process (more precisely the vacuum plasma coating process) has for a long time now been regarded in surfacing technology as the technical basis for the optimisation of existing materials and the development of new materials. However, in architecture and design these processes have so far found little application. Nevertheless they provide technically functional and design possibilities which seem simply pre-destined for use in these areas.

Highly-Reflective Aluminum

This aluminium is upgraded with a flexible and intensely reflecting layer and allows forming without any visible defects (crazing). The material achieves a total reflection of 95%; the best previous qualities had total reflections of 87%. The vapour deposited layer is pure aluminium (Al 99.99%). It shows no reduction in corrosion resitance after forming. When used in high quality lighting louvres, the exact reflection of light is enhanced, and the cut-off angles are considerably reduced. The surface can be easily cleaned. It is not static and will attract no dust when in use. This material is suitable for a multitude of applications such as: standard lighting louvres, daylight systems, solar energy systems and decorative applications.

Holographic Surfaces

Holographic-optical elements on transparent film with light-directing characteristics disperse light into its spectral colors similarly to a prism. The surface bends the incidental light from a certain angle, by which every color is radiated at a different angle. The brilliant rainbow colors fall on the room surfaces and become visible there. In the hologram surfaces themselves, the colors are only distinguishable from a limited angle of observation. The film material is colorless, highly transparent, UV-resistent and can be used on facades and interiors.

Protective Coating
Plasma and vacuum coating to improve wear and hardness for tools, medical technology and mechanical engineering. The coating technology is used for small parts, granulate and similar goods to deposit hard material, decorative metal or optically high reflective films. The refinement of glass granules ensures high decorative qualities, high reflectivity and offers an wide field of application. The coated glass parts are used for example as aggregates in the production of Terrazzo tiles and give the product extraordinary decorative effects. Maximum length of the parts are 970 mm, the maximum diameter: 300 mm.

Transparent Sun Protection
Transparent sun- and glare protection system that concentrates sun radiation onto solar cells and allows diffused light to pass through (for viewing, room illumination). The sun-protection laminates are installed on the outside over glass ceilings or in front of window surfaces and directed on a single-axis toward the sun (azimuth or altitude). The photo-voltaic energy yield per cell can be increased through the radiation concentration up to 50%. The light transmission of the glass is still 80% - 90%.