

'ZOWO-PLAST® ANTI-HEAT' WET COATING OF PVC WINDOW PROFILES

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The 'Coating Technicians' at 'Zobel' are now pioneers in ecological environment-friendly colour shades for the wet coating of PVC building-constructional elements, with their single-component water-based polyurethane system. The Zowo-plast® System is equally simple, resilient and weatherproof. An even greater benefit is the inhibition of climatic heat-absorption by the Zowo-plast® Product Range.

Nothing further to prevent the use of a black colour shade requirements

The thermo-plastic working material of PVC tends to buckle at temperatures over and around 70°C. As building constructional elements heat up to temperatures far above the ambient temperature under conditions of direct sunlight radiation, the use of darker colour-coating shades on such materials, is usually difficult in warmer climatic zones. Under conditions of 30°C ambient temperatures and the direct impingement of sunlight, even white PVC elements easily reach surface temperatures of 50°C. Nevertheless, customers seek to obtain a darker colour shade of their choice on architectural grounds. This tendency takes of course no account of whether the surfaces heat up more or less. In particular, the increasing trend of customers in warmer climatic zones to select darker colour shades for building constructional elements, exacerbates the situation. Here is where the technical knowledge, experience and skills of 'Zobel' with its ANTI- HEAT 'Heat Shield' Product can help, and reduce exposure heat-up tendencies to levels similar to white PVC elements.



Dimensional stability and maintenance of functionality

The benefits of the Zowo-plast® ANTI-HEAT Product are very many. Surface temperatures of darker colour-shades in building-constructional elements tend to be less by some 30°C in contrast to conventional coating systems. The temperature differences between dark coated and white uncoated-PVC elements is thereby limited to 6°C. This provides for dimensional stability and the maintenance of functionality in PVC building-constructional elements, even at high external ambient temperatures. The 'ANTI-HEAT' product thus permits the use of deep black colour-shades in many countries in the warmer climatic zones.

Zobel, with its Zowo-plast® product and colour shades has now managed to reduce ongoing minimal heat absorption. The working principle of the product is the reflection of infra-red radiation, being that part of the sunlight spectrum, which normally leads to the heating up of building constructional elements under conditions of direct sunlight radiation.