

IQ Structures launches holograms for transparent windows in polycarbonate IDs

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As the race between ID cards counterfeiters and defenders goes on, there is a growing tendency to integrate more security technologies into single elements. Guards can check just this single element, while the attackers need to do multiple their works. IQ Structures, a Czech research and manufacturing organisation focused on optical nanotechnologies, announced the launch of a product that integrates the most robust anti-counterfeit protection technologies – high-resolution holograms and transparent windows in polycarbonate ID cards.

Transparent windows have been used since the beginning of polycarbonate ID cards in 90th. Another protection element, such as laser burning into the window, is often added recently. IQ Structures' solution enhances it through integrating full-fledged holograms. "It is simple and intuitive for supervisors. If you look against a dark background, you can see through the card and – at the same time – a distinctive hologram with sharp colours and sophisticated visual effects," says Robert Dvorak, Divisional Director for Security in IQ Structures. "It is critical that the hologram is ageing resistant. Most hologram producers use an adhesive for adding holograms to polycarbonate. The adhesive changes its optical parameters in time, so clearness of the hologram is impacted. IQproID doesn't use any heterogeneous substance. We are thus able to guarantee full brilliance of hologram after ten years."

The solution is based on IQ proID product. Holograms consist from tiny parts, and melted polycarbonate flows between them during the card lamination. The hologram is thus integrated into the card seamlessly and any manipulation attempt results in irreversible disintegration of the hologram.

Transparent, metallic and combined holograms in any arrangement can be placed into transparent windows with the new IQ Structures' solution. These holograms can create an organic unit with background graphics and security graphics of the ID card.

It is critical that holograms for transparent windows have specific features such as unusual visual effects, strong even in low-quality lightning, which is challenging for transparent holograms. IQ Structures company is backed by its origination centre, recently awarded by double victories in Excellence in Holography 2018 organised by International Holograms Manufacturing Association. IQ Structures' origination centre applies different technologies, including e-beam lithography and laser holography to create unique effects, such as well shaped 3D objects and small animations.

IQ Structures has been working on integrating anti-counterfeit technologies for a long time. It recently announced a solution that enables clients to incorporate holograms and Security graphics.