

New palette of colors of luminescent enamels

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Artists often pursue new chromatic experiences and the use of luminescent materials enables an original color palette. Luminescent enamels were already produced but it is important to prepare a low melting temperature luminescent enamel ($\leq 565\text{ }^{\circ}\text{C}$), to avoid glass deformation after annealing, and that at the same time convey a vitreous surface. In this project low melting lead free luminescent enamels will be synthesized. The application of these enamels as a vitreous artistic material in artworks will be carried out.

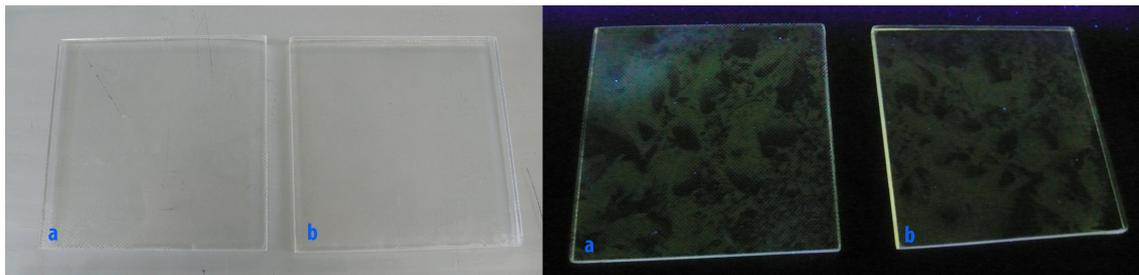


Figure 1 – Screen-printing test pieces made with terbium oxide. The test piece on the right is illuminated with UV light and the piece on the left with day light.

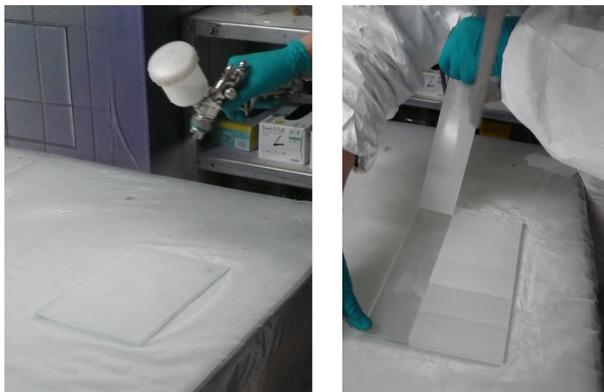


Figure 2 – Spraying process.

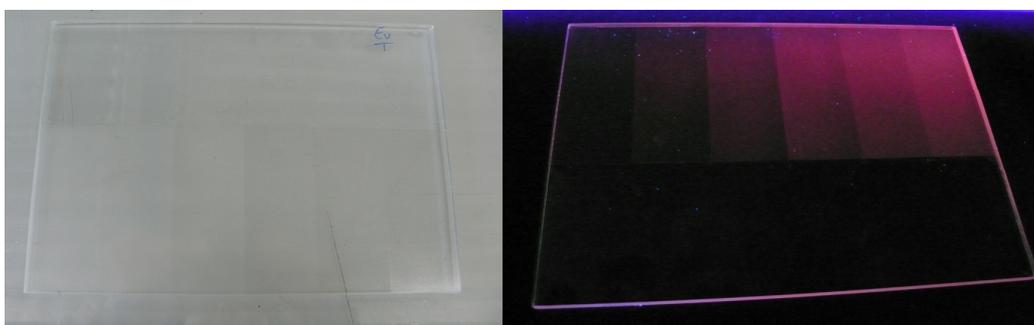


Figure 3 – Spraying test piece, made with europium oxide. The test piece on the right is illuminated with UV light and the piece on the left with day light.

In order to improve the use of the enamel in artistic applications, a residency was made in February 2013 at Derix glass studios, Germany. Different painting techniques, such as, painting with a bush;

screen-printing and spraying where apply onto the glass surface. The enamels were also tested on several types of glass, float glass, OptiWhite, antique, flash, Artista®. An article about the luminescent enamels and residency was submitted to craft journal.

It was made an oral communication at the Society of Glass Technology conference: T. Almeida, A. Ruivo, A. P. Matos, "Production of luminescent glass for artistic applications", Murray Edwards Cambridge University, UK, September 11-13, 2013, and an article in being finalise to submit to the Glass Technology journal. Also it exhibit luminescent pieces at the exhibition "Vidro Contemporâneo Brasileiro" in Nacional Museum UFRJ in Rio de Janeiro, Brazil, 2013.