

# Fiber Bragg Grating Sensor Applied on the Drying Time of Latex Paint Monitoring

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***Abstract*** — This work shows preliminary results of application of an optical fiber sensor to monitor the drying process of paints. Drying time of latex paint was monitored along 57 hours. A fiber Bragg grating, completely immersed in the paint, was employed as transducer device for the mechanical forces inherent to the process. Along this temporal period, the sample changed from a sticky liquid state to a solid state, monitored by the encapsulated sensor. The temperature along the processes was also monitored with another Bragg grating in the same optical link.

***Keywords*** — Paint, fiber Bragg grating, optical fiber.