



Universidade do Minho

## Report on the use of ENHANCE product from PSI BRAND

Figure 1 shows the picture of two boxes produced in PE with Bronze metallic pigments. On the right image Enhance product has been applied on the mold surface. As observed there is an improvement on the surface quality of the part. Pin holes have been reduced substantially.



Figure 1 – Parts produced in PE with bronze metallic pigments: a) Uses no enhance and b) uses enhance product at the surface.

Figure 2 and 3 represents the optical microscopy images through the thickness of the samples when ENHANCE was not used. As observed the dispersion of the pigment is not good, given the fact that dry blending is used to mix the materials. Moreover, holes are observed along the thickness. The material is not well compacted.

When using ENHANCE at the surface of the mold (Figure 4 and 5) no major influence is observed regarding the morphology of the part. Moreover, no conclusion can be drawn regarding the thickness uniformity. Two different regions of the same sample present different structures, one more compact than the other.

Given the limited number of experiments carried out with ENHANCE no further conclusions can be made.

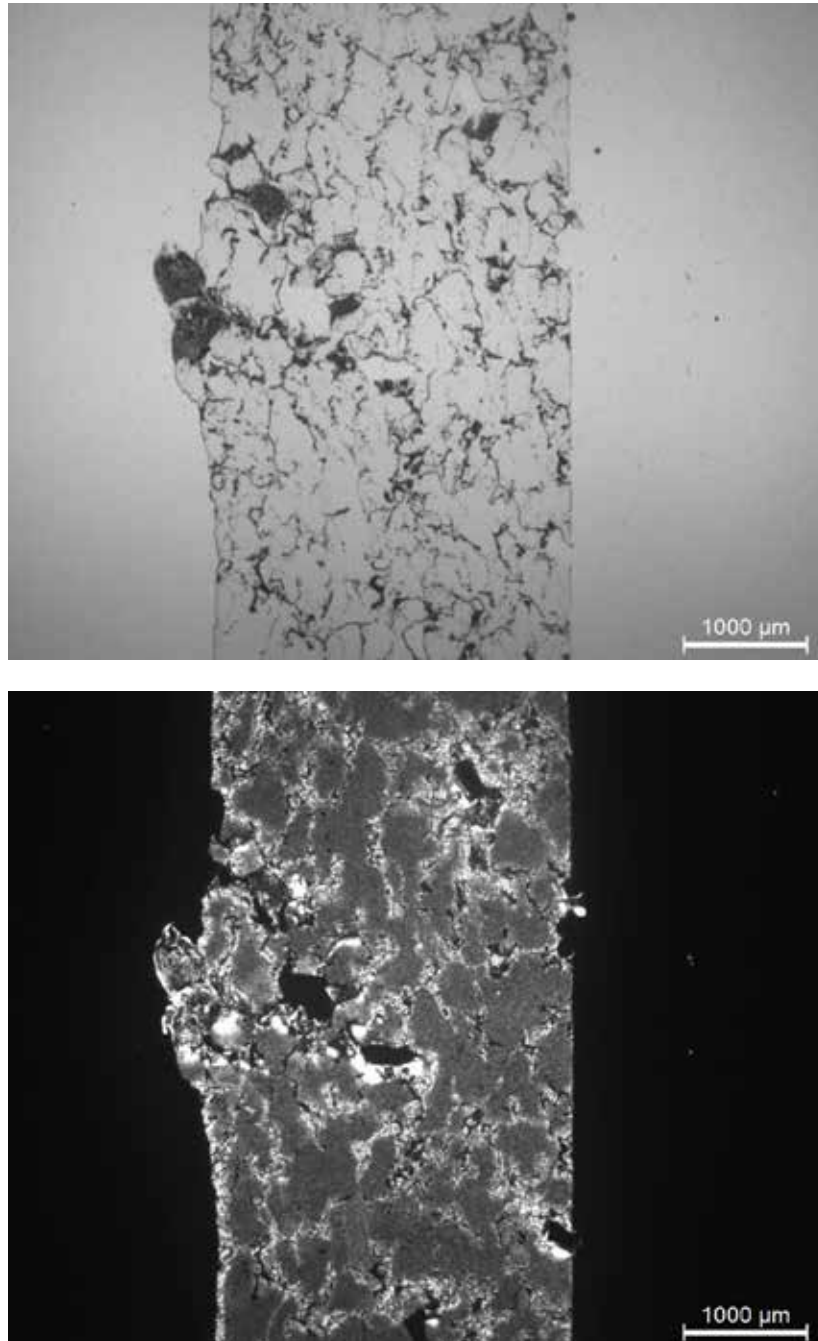


Figure 2 – Optical microscopy analysis through the thickness of the sample when no ENHANCE has been applied to the surface of the mold.

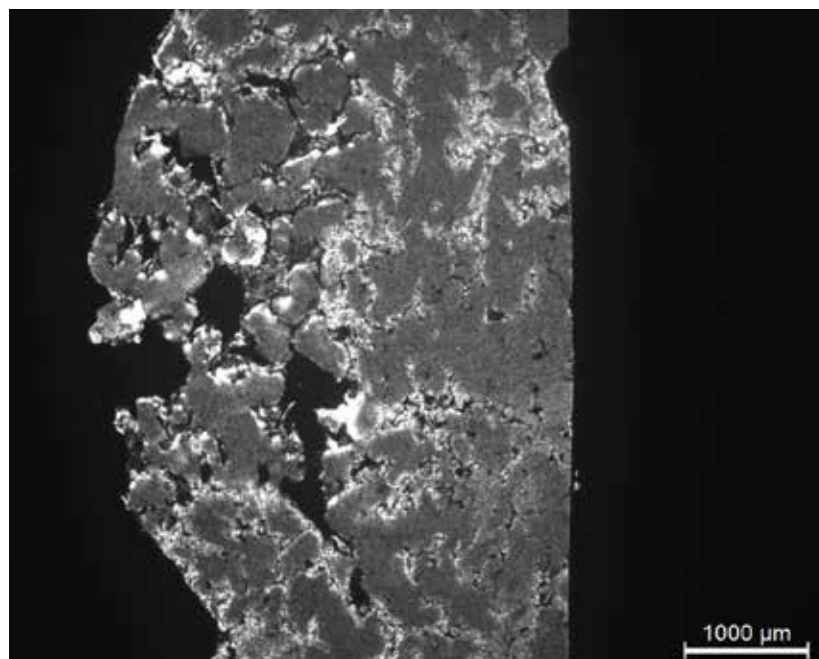
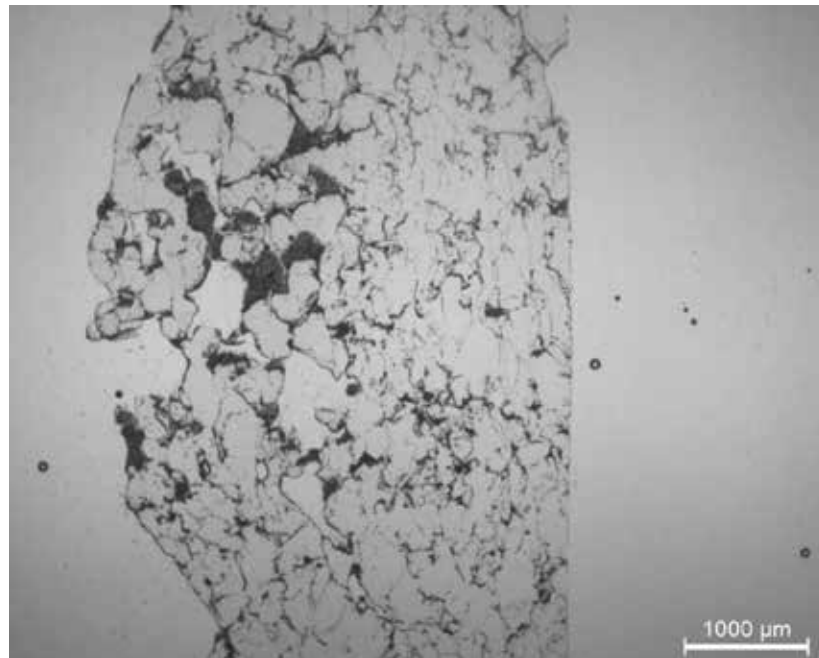


Figure 3 – Optical microscopy analysis through the thickness of the sample when no ENHANCE has been applied to the surface of the mold

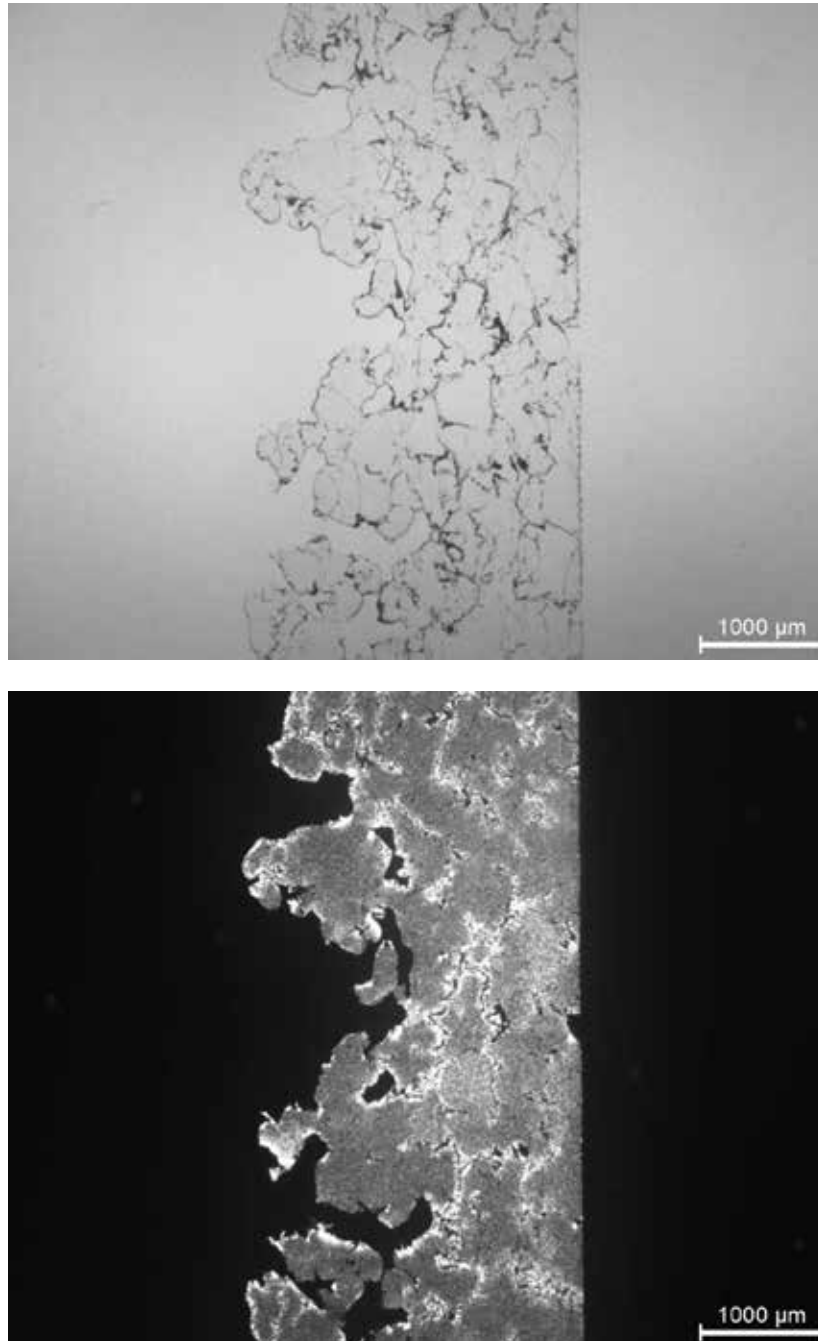


Figure 4 – Optical microscopy analysis through the thickness of the sample when ENHANCE has been applied to the surface of the mold



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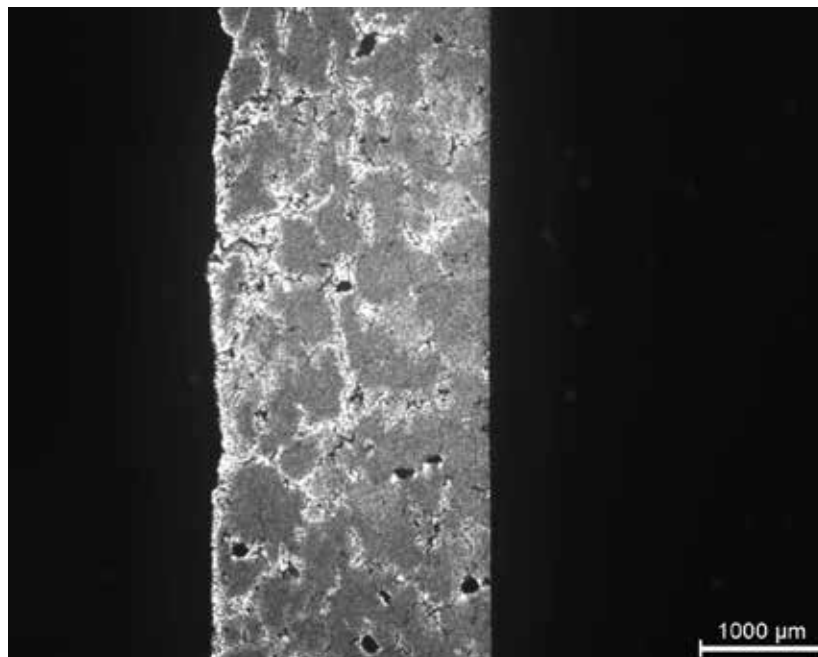
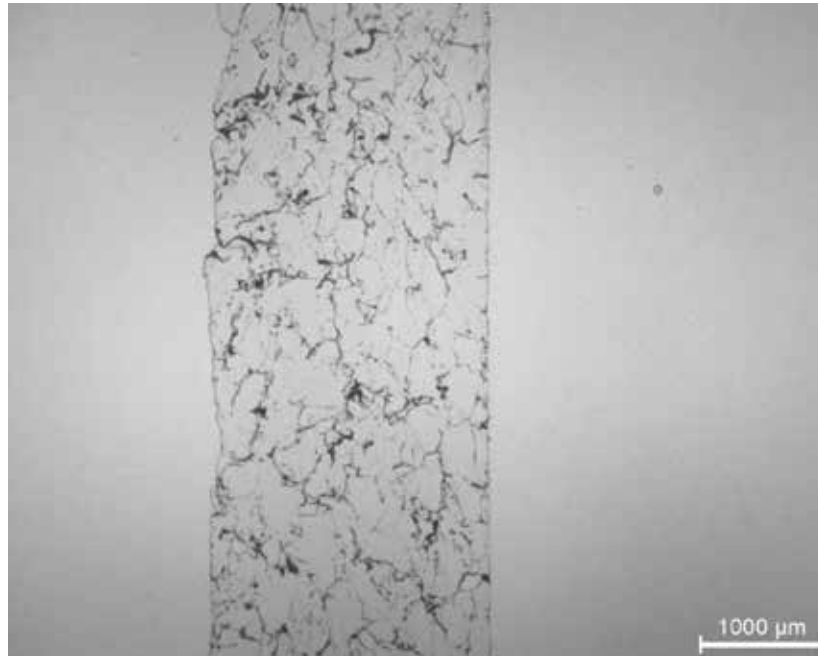


Figure 5 – Optical microscopy analysis through the thickness of the sample when ENHANCE has been applied to the surface of the mold.

Product given during the ROTOMOULD 2015, Jun 21-23, Adelaide, Australia

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