

PROTECH

OXYPLAST



Good2know Tuesday

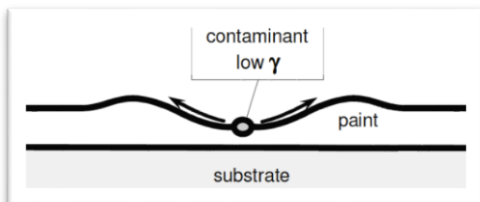
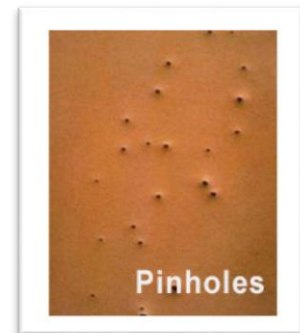
GOOD2KNOW – 20/10/2015
Powder coating failures

Good2know that... a crater and a pinhole can be clearly distinct.



Craters (a.k.a. 'fish eyes') are circular cavities in the coating that can vary from a flat hollow to a serious wetting disturbance. Though rather uniform in appearance, craters can have very different causes. They can be formed before the paint film is finished, when a non-consistent substance (such as oil, fat, silicone or wax) disturbs the wetting process of the powder coating system.

Pinholes are very small holes or pores in the entire thickness of the coating layer(s), and appear when having problems with the substrate or underlying paint layers. Water, gasses and/ or air enclosures coming from the substrate can cause defects during the curing process, resulting in the creation of pinholes. Powder coatings are designed to release no, or very low volatile compounds during curing. For example, the water content of some TGIC-free polyester powders can disturb the powder coating film – mainly at higher layer thicknesses – and result in pinholing. It is advised to use special low bake degassing powders to avoid this type of powder coating failures.



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