

# Commercially important aspects of drying dynamics in decorative coatings

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The physical transition, for decorative coatings, from the wet formulation in-can to the dried functional coating on the substrate is an important one. This aspect requires careful attention in order to realise the intent and desire of the formulator for the final product in-use. In particular, the application and appearance properties of the coating can be largely governed by processes that occur during drying. There have been recent advances in our understanding in this area that have led to improved products and increased flexibility in the formulating space.

Three areas will be presented:

- control of mud-cracking in high PVC coatings
- extending the “open-time” or “working time” of waterborne coatings
- invoking auto-stratification in a drying coating

Each area depends significantly upon the drying process and, as such, having a robust understanding of the controlling factors allows optimization of the in-can formulation such that it delivers the dried coating functionality that the consumer expects.