

Alesta® SD

Guidelines for the use of super durable powder coatings



How to avoid or minimize contamination of powder coatings during application.

Currently there is increasing demand for Superdurable powder coatings (also referred to as High Weathering Resistant). The result is that this quality is being used more and more frequently in powder coating lines.

Super durable powder coatings contain special resins in order to provide outstanding weathering resistance. Consequently the reactivity, the viscosity and also the surface tension are different to standard architectural powders and can create contamination problems.

Superdurable powders are more likely to contaminate standard durability powders. So we would advise you to take special care when using Superdurable powder coatings in order to minimize the risk of contamination which might result in cratering, especially in the case of very slight or trace contamination. The system (application equipment, spray booth etc) should be adequately cleaned following use and, whenever possible, the following powder coating should be non-sensitive to contamination (for example a textured finish).

A small compatibility check before full production can help to avoid problems and/or extra costs. Always test in both directions, by this we mean in a proportion of (for example) 0.1:99.9 as well as 99.9:0.1. The check should be carried out even if the two products are supplied by the same manufacturer or have the same gloss level.

Even if the check shows no obvious sign of contamination, our advice is still to thoroughly clean the system before changing from a superdurable to a standard product (or vice versa). This is especially important when the powder is reclaimed/recycled. It is best to test a sample of the reclaimed powder to confirm suitability before using. This can be especially useful in the start-up phase until more experience is gathered.

An alternative solution can be to avoid (as far as possible) product changes that are known to cause contamination; often small changes to production planning can already provide the solution.

Attention

- Contamination can also occur amongst standard or super durable powder coatings.
- Contamination can just as easily occur between powder coatings from one supplier as multiple suppliers.

This advice is based upon our current knowledge and has been prepared with the utmost care. However it might differ per individual case. Therefore we do not offer any guarantee for this information and nor can Axalta be held liable for any consequences.