

A&I Coatings FAQ Sheet No. 12

Coating Application and Warranty

Facts on Coating Application.

Everyone connected with the coating industry knows that there are numerous pitfalls for the unwary applicator. We summarize some of the main ones as follows...

1. Concrete and masonry coatings- Adhesion poor.

Possibilities... a. Inadequate preparation- how was surface prepared? **See FAQ 9**
b. Moisture Vapour transmission- test?
c. First coat inadequately mixed... it is especially necessary to power stir especially water based two pack coatings to ensure dispersion and consistency. How was coating stirred?
d. Contamination ... oil, silicon, etc. See FAQ9 and others

2. Topcoat adhesion poor.

Possibilities... a. Intercoat adhesion is dependent on either a chemical bond or a mechanical bond. A chemical bond is most easily formed when the first coat is still drying or curing so has molecules free to attach to fresh ones in top coat. A mechanical bond is formed normally by surface roughening or abrasion so the top coat can get a 'hold' on the first coat.
b. Top coat inadequately mixed. Once again, especially two pack coatings need power stirring.

3. Colour Variation...

Always check colour before mixing. On special tinted colours check the spray out and notify A&I Coatings of any discrepancy. Other possibilities...

- a. Pack A pigment not fully incorporated, requiring more stirring.
- b. Metallic colours especially are influenced by a number of things such as weather conditions, amount of thinners added, and if spraying, air pressure, nozzle size etc.

4. Inadequate Coverage

There is Theoretical Coverage given on the Data Sheet which is based on the volume solids of the paint and then calculated on the recommended film thickness per coat as a M2/Litre figure. This doesn't take into account losses in application which are low for

example when rolling a flat surface but can be very great when spray applying to a tubular installation as an example. Then there are variations in Specifications for different applications and environments. Therefore if there is a doubt it is best to ask for technical help.

Example E2100 TDS

Theoretical Coverage	: 6 - 10m ² /litre @ 40 to 60µm DFT (100 - 170 µm WFT).
Volume Solids	: 37% by Volume.
Recommended DFT	: Dependant on application. Typically 40 - 60µm DFT per coat.
Usual no. of coats	: 2 – 3 coats.

The above being a coating on concrete rather than a protective coating on steel, the porosity of the concrete will have a bearing on the film thickness required, and also the number of coats.

For example, two coats at 50 um each or 7.8m²/Litre may be adequate on a smooth steel trowelled floor. This would give an overall usage of 3.9m²/Litre.

A more porous rough concrete floor may take three coats which would bring the overall coverage down to 2.6m²/Litre approximately.

5. A&I Coatings Warranty...

What does it cover?

A&I Coatings Warranties supply of replacement material only. In the event of a problem, the customer should notify A&I Coatings who will send a QA form to be filled out with Batch Numbers etc. If it is proven that it is a product failure, A&I Coatings will supply replacement material.