

## WHY DO WE PAINT TO A COATING THICKNESS?

Have you noticed cracking, corrosion or rust, runs or solvent entrapment in your paint coating?

This could be due to problems associated with incorrect dry film build which could result in reduced durability over service life.

Dry film thickness (**DFT**) or coating thickness is arguably the single most important measurement made during the application and inspection of Commercial, Industrial, Aviation & Military coatings.

Coatings are designed to perform their intended function when applied within the **DFT** range as specified by the manufacturer. You can find the recommended **DFT** in your Technical Data Sheet.

### What is DFT?

Dry film thickness (DFT) is the thickness of a coating as measured above the substrate. This can consist of a single coating layer or multiple layers.

DFT is measured after the coating dries. The thickness of a coating depends on the application and type of process employed.



Dry film thickness (DFT) can be measured using two methods:

1. **Destructive Thickness Measurement**, where the coating is cut to the substrate using a cutter (Tooke Paint Inspection Gauge)
2. **Non-Destructive Coating Thickness** measurement, using an instrument called a digital coating thickness gauge (see image above).

**Need to Know:** Digital dry film thickness gauges need to be regularly calibrated using certified plastic control shims. It is important to conduct a number of readings across a given area, to establish an average DFT for the area of interest.

### Problems Associated with Incorrect Dry Film Builds

There are many problems that arise when paint coating thickness is applied incorrectly such as:

- Cracking
- Corrosion/rust
- Solvent entrapment
- Runs/sags
- Excessive orange peel/poor flow
- Delamination or adhesion loss
- Reduced durability during service life

### So how can you Prevent the above Problems?

To best prevent incorrect dry films builds, it is recommended that the correct application techniques are applied along with checking the coating thickness using a gauge like the once mentioned above. The Technical Data Sheet provides you with the recommended DFT which when adhered to will reduce issues.

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