



## Learn How to Measure Wet and Dry Film Thickness of DC315 Thermal Barrier & Ignition Barrier

Wet film thickness, or WFT, is the measured thickness of any liquid applied coating while it is still wet. A wet film thickness gauge should be used by the applicator, as the coating is being applied, to ensure that the average applied thickness is representative of the tested wet film thickness required to meet Code. Industry best practice is to measure the WFT of freshly sprayed coating within 3 minutes of application. See Figure 1-3

Dry film thickness, or DFT is a measurement of the dry and cured material after all liquid has evaporated.  $DFT = WFT \times \% \text{ volume solids}$ . For a 67% volume solids material with a WFT of 18 mils,  $DFT = 18 \times 0.67 = 12$  DFT. By simply reversing the equation DFT can also be measured to determine what the applied WFT was.

**Why is WFT important?** Measuring the WFT of a coating enables the applicator to adjust the spray gun speed, number of spray passes and to make spray gun adjustments to ensure sufficient coating is applied to meet the fire testing without over applying which negatively affects your profits.

*\*Code compliance made easy- measuring WFT of DC315 coating during the application process and recording it on a Job Work Record helps ensure your AHJ has documentation to support their inspection. IFTI Job Work Record*

**What is the relationship between WFT and profitability?** Not only does measuring WFT ensure you are maximizing the yield of DC315, but DC315 Thermal Barrier and Ignition Barrier applications have also been third party tested to be applied in one coat (including ceilings) with no sagging, bagging or dripping. Single coat applications **reduce labor by 50%** when compared to less viscous products. [One Coat 3rd Party Test Report](#)

**How is the WFT requirement determined?** Wet Film Thickness requirements are determined by measuring the applied coating used to meet the criteria of full scale fire tests of audited, listed and sampled DC315 conducted at IAS certified 3rd party testing facilities. Every blend of every brand of SPF must be tested individually and the applied WFT for that specific system will be Listed on the coatings certified test or evaluation report. DC315 is the most tested and approved product for use as a Thermal Barrier or Ignition Barrier fire protective covering over hundreds of blends/brands of Spray Foam Insulation all tested for IBC / IRC code compliance. [DC315 Testing Matrix](#)

### Using Medallions to Verify the Wet and Dry Film Thickness of the Installed Coating

- The surface of SPF insulation is inherently irregular, for ease of Wet Film Thickness measurements IFTI suggests placing metal plates (aka Medallions) on the surface of the foam, prior to installing the coating.
- Medallions provide a smooth level surface that provides for a more accurate WFT measurement.
- Once the coating is applied, use your WFT gauge to measure WFT on the front side of the Medallion taking several measurements to determine the average WFT that has been applied.
- Once dried, remove the Medallions and write the job date, job location, applicator name and the average Wet Film measured, on the back of each plate. (See Figure 3).
- Collect your Medallions and keep them on file. They are a great tool to present your code official or Fire Marshal.
- Medallions allow for future verification of the Dry Film Thickness (DFT) using calipers, micrometers, electronic or magnetic measuring tools.
- When measuring WFT on the SPF surface where no Medallions were used, take multiple measurements using the Notched Gauge, avoiding high and low spots on the SPF surface.
- Whether measuring WFT with or without Medallions be sure to record the applied WFT on [IFTI Job Work Record](#)



Figure 1. Notch Type Wet Film gauge

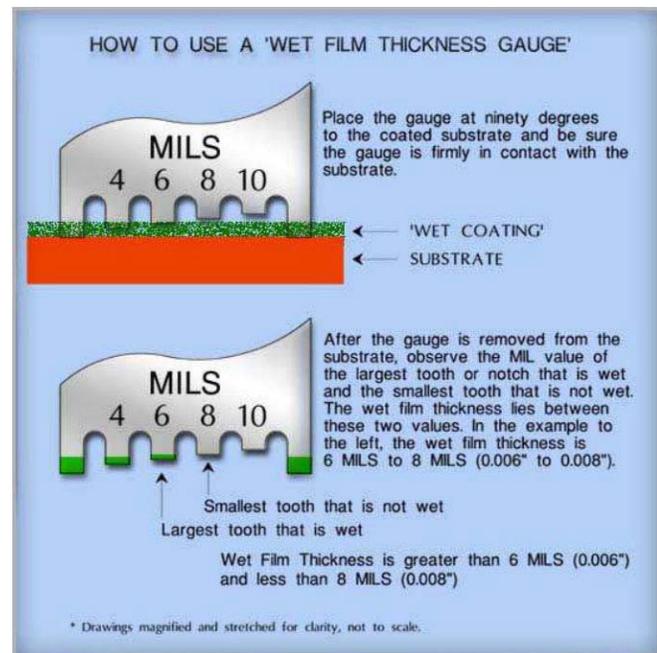


Figure 2. Details on measuring WFT using a notch type wet film gauge. Image courtesy of [www.geionline.com](http://www.geionline.com)



Figure 3. Front and back of Medallions. These mending plates can be purchased at local hardware stores.

View Videos Below

[How to Measure Wet Film Thickness WFT](#)

[Medallions – The benefits of Using Medallions](#)

### Specifications of Medallions

#### Mending Plates

- Model # TP15
- UPC # 031107654803

Available at local or online hardware stores