Dry vs Wet Mils – What is the Difference?

After determining that a roof substrate is a candidate for a coating restoration system, it's imperative to know the basics of quality control to ensure the system installed will achieve optimal performance and be in accordance with the manufacturers specified guidelines.
The basics of quality control start with knowing the difference between Dry and Wet mils.

Understanding Wet Mils
ANY, one gallon of liquid applied in a one square (10ft x 10ft) area will result in 16 wet mils. It could be water, ketchup, coating, paint, etc.…. when applied in a liquid state, you will have 16 wet mils. Once this liquid state cures into a solid, the remaining material left is known as your dry mil thickness. It is important to understand that not all 16 wet mils applied will remain when the coating cures into a solid state (unless it is 100% solids by volume). *SEE BELOW*

Understanding Dry Mils
To understand the amount of dry mils that will be left on the roof after a coating has cured into a solid state, it is important to know what the solids by volume percentage of the product being installed. That percentage of solids is what you will have remaining after that liquid is fully cured, also known as Dry mil thickness. (**BEWARE**- a common misconception is that solids by weight is relevant to dry mil thickness left after curing, this is often falsely advertised…and is not accurate.)

Example #1:
Product being installed: Acrylic Roof Coating
Percentage of Solids by Volume: 50%
Manufacturers Application Rate: 1 gallon per 1 square (10ft x 10ft area)

To achieve 1 gallon per 1 square, you apply it down at 16 wet mils with 1 gallon of coating. When that acrylic coating starts to cure; the percentage of solids by volume is 50%, meaning that you start with 16 wet mils X 50% solids = **8 dry mils (when cured)**. These 8 dry mils are what is left after the coating is cured out.

Example #2:
Product being installed: Silicone Roof Coating
Percentage of Solids by Volume: 98%
Manufacturers Application Rate: 2 gallons per 1 square (10ft x 10ft area)
        (*Note: Remember, 1 gallon per 1 square = 16 wet mils)*.
To achieve 2 gallons per square, in a 1 square area; you must apply the coating at 32 wet mils
When the coating starts to cure those 32 wet mils X 98% solids = **31.36 dry mils** (when cured).

Knowing the basics is essential, please do not hesitate to reach out to us at 838 Coatings for any additional questions or technical assistance to help you achieve maximum results.