

Estimating Coating & OPV Usage



Estimating how much coating or overprint varnish will be required to print a job is not an easy (or especially accurate) task when we consider the vast number of variables in the industry today. Even experienced estimators do not hit the target every time.

For example, the differences in substrates and printing presses require close consideration. Papers that are more absorbent will require more coating or overprint when compared to a sheet that has higher holdout. Presses and coating units have limitations on how much they can apply (heavier or lighter) in order to achieve the desired effect. If higher gloss is desired, there is a tendency to apply more product. Any of these factors will directly affect usage/mileage.

Usually every printer has a method for determining usage for job cost estimating purposes. This usually involves calculating the total square inches for a sheet and converting to square feet for the entire job. Then, using a factor like 1000 sq. ft. per pound of coating, they arrive at a starting point. Once it has been determined how much coating or overprint is being used for each 1000 sheets (or load of paper), it will be easier to determine an accurate usage for each type of paper and press in the future. It is important to allow for print waste and coating/overprint varnish that is required to prime the sump, hoses and fountain and/or tray.

W = sheet width in inches ÷ 12

L = sheet length in inches ÷ 12

$$\frac{\mathbf{W \times L \times \# \text{ of impressions}}}{\mathbf{1000}} = \mathbf{\text{lbs required}}$$

Overprint Varnishes, UV Coatings and Aqueous Coatings

The above-mentioned guidelines are for aqueous coatings for typical commercial printing on coated paper. Usually, printers will apply as much aqueous coating as possible to achieve the desired level of gloss or protection. Limiting factors are drying capacity, load temperature, coverage, etc. Aqueous coatings are about 40% solids and only 40% of the wet coating remains when dry.

UV coatings are usually applied at a heavier film thickness to achieve maximum gloss. Since UV coatings are 100% solids, the film thickness is automatically higher when cured.

Oil-based overprint varnishes are typically applied at a slightly lower weight than aqueous coatings. Kentucky Shine application weights vary, but a safe starting point is to use the above guidelines for aqueous coatings and adjust the estimates once the desired application weight is determined.

FOR YOUR PROTECTION:

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