

12/02

EQUAL PERFORMANCE DOES NOT MEAN EQUAL APPLIED COST

No! Coatings may not be the same even if they seem to produce equal results.

It's not had to understand.
Coatings are formulas.
Coatings are recipes.

Coatings are mixes made from a selection of raw materials.

Raw materials are selected based on the performance properties sought. Raw materials are selected based on least cost.

So what do you care as a user of coatings?

You should care:

- First of all, to chose a coating (a specific formula) that will produce the performance properties that your customer requires on his job, gloss, rub, slip, etc.
- Secondly, chose a coating (a specific formula) that machines well on your equipment, in your shop, has usable viscosity, doesn't dry too fast or too slow, etc.
- Thirdly, chose a coating (a specific formula) that provides you with the best value in terms of **applied cost**.

How do we define applied coating cost?

Applied cost should be defined as the cost of the amount of coating required to produce a customer satisfying job (measurable) results per some unit of area, i.e., 1000 square feet or 1000 sheets, or a ream. When we speak about a coating application that will produce the performance properties that your customer requires on his job and works for you as well, the questions must be:



1. Does the specific coating formulation being used produce performance properties that will satisfy your customers expectations?
2. Does this specific coating formulation "machine" effectively for you in your shop?
3. Can you run your press as fast as you would like?
4. How much applied coating weight is required to yield customer satisfying performance results? In other words, how many pounds of coating are required per unit area coated?
5. What is the cost per pound of this specific coating? What is the applied cost per unit area coated?
6. How does the applied cost of a customer/shop satisfying coating compare with alternative coatings?

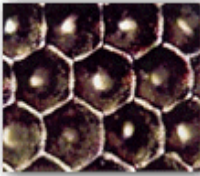
Some coating application equipment allows the operator to make coat weight adjustments. When using these types of coaters it is normal for coat weight adjustments to be made so that the finished coated job is satisfactory and meets customer agreed to specifications.

It should be normal pressroom practice using these adjustable coaters to strive for efficiency, adjusting, so that the minimum amount of coating is applied while producing customer-satisfying results. It follows that the pressroom should then understand that **differences** between competitive coatings could be determined.

Some coating formulations will not result in like finished properties when equal amounts of wet coating are applied because of the way in which the coatings are formulated, and the particular raw materials utilized. Think of it this way, if the best raw materials are chosen,

the formulator should be able to produce a coating that will deliver the targeted results with the least amount of coating (wet volume) used. We see this all the time with house paints, where some cover in one coat and some will require two and even three coats. I know that some of you find this with printing inks too; some inks print stronger than others because of the quality/functionality of raw materials selected and the pigmentation.

Anilox coaters, with no adjustment for applied wet coat weight, are essentially adjusted by installing a different anilox coating application roll. One of the strengths of an anilox coater is the fact that it is capable of applying a consistent wet coat weight. This consistency is what you want as a press operator.



An anilox roll is engraved with very small cells or cavities, which are being filled with a volume of coating. Excess coating is being removed by the

scraping doctor blade system. Technically, if coating viscosity is correct for the coater and there is no foaming, the cells should be filled consistently and effectively. This assumes that the anilox is clean and the cells are not partially filled with dried coating reducing cell volume. With all things seemingly equal, you may still have one coating that releases better from the anilox cells, effectively transferring more wet coating to the substrate.

When different coatings are run on an anilox coater, looking for competitive advantages on the same job, one must measure and compare the final finished coated results, such as gloss, rub, slip, etc. Then you should check mileage in spite of the fact that the anilox should be applying equal amounts of all coatings by volume. Then factor in coating cost to determine applied cost for each. If the coatings produce equal finished coating properties, gloss, rub, slip, etc., then the coating with the lowest applied cost is your best value, assuming that there are no machining issues.

If the measured finished coating properties turn out to be different with one coating offering improved finished properties, gloss, rub, slip over the other, then you need to

determine if running a finer anilox would lower applied cost while still meeting customer specs. If you don't want to invest in another anilox roll, you might ask your coating supplier to supply a coating that will produce the required customer specs and no more.

Don't forget one important fact. If you prove that you have run a coating that exceeds customer specs, you have found a way to add value to your printed product. Can your sales force sell this improved property product? You should find out! Adding value is a proven method of adding profit to printed product.

100% UV coatings also should be examined for equal performance, equal applied cost in a similar fashion. Just because UV coatings are spec'd as 100% solids doesn't mean that application is going to be equal or that finished properties are going to be equal. UV coating formulators have the same opportunity as aqueous coating formulators to choose among a myriad of raw materials to produce target finished coating performance and price results. Some of these raw materials are pricier than others, some offer better performance. Some formulators might use fillers to take up space and reduce cost.

Be smart, test/measure coating performance results. Compare to customer performance requirements and calculate applied costs to determine your best coating value.



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