

Re-Examining the Potential for UV-Powder Coatings

By Paul Mills

Too often, it is said, that marketers use statistics like a drunk uses a light post—more for support than illumination. This article will hopefully cast some new light on UV powder's struggle for market acceptance. These observations may cause both suppliers and "experts" to re-examine beliefs and prejudices—and also signal to customers to take a more active role in helping to refine the dialog about this exciting new technology.

The past few years have been tough for the entire coatings industry. At one recent industry meeting on UV

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powder coatings, a major supplier of medium density fiberboard noted that across all sectors, business was down to record low levels.

The problem has been even tougher in the emerging markets where the return on investment is longer, the risks higher and the rewards have been scant at best.

Setbacks to UV-Powder Market

The economic slowdown has delivered a one-two punch to the UV-powder segment. First, and most obviously, there are fewer immediate prospects. Fewer customers are willing to fork over the money for a large capital investment especially when there's often surplus capacity on existing finishing lines. The arguments



Application of UV-powder coating.

of greater throughput, and faster processing time fall on deaf ears when many companies have actually reduced production needs.

The second blow is that the supply chain—the formulators, raw material suppliers and equipment manufacturers—have also slashed their workforce and focused efforts on core markets with existing customers.

So in the end, there are far fewer apples in the trees—and many less folks shaking those trees.

Market Survey

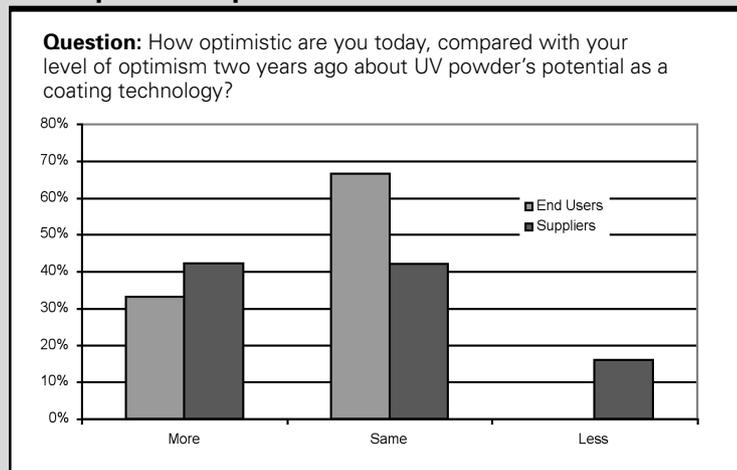
In the midst of all the doom and gloom, it occurred to me that a survey that assesses the market and feelings about UV powder would be useful. In some cases, the results were unexpected and fascinating.

The Methodology

In September 2003, two groups were asked to participate in an anonymous survey. Each group was asked identical questions. The first group was made up of end-users or potential end-users of UV-powder technology—custom coaters, captive finishing shops in the wood market

FIGURE 1

Survey results gauging respondents' opinions of UV powder's potential



and select heat-sensitive substrate markets. The second group surveyed were suppliers of UV-powder coating chemistry and hardware. Survey respondents consisted of about 115 individuals—50 end-users and 65 suppliers.

The Good News!

Asked whether their opinion of UV powder's potential was higher or lower than it was two years before the survey—before the really dramatic downturn of the economy—the respondents were uniformly upbeat (Figure 1). In fact, none of the end-users report being less enthusiastic about UV powder than they had been and nearly a third of them were more optimistic than in years past. Interestingly, about 15% of the suppliers reported being less optimistic about UV powders potential—colored perhaps by less than anticipated returns on their continued investment in the technology.

An Analysis of Perceived Benefits of UV Powder

Some very startling and unexpected results were discovered when the end-user and supplier survey groups were

asked to rank the perceived benefits of UV-powder coatings (Figure 2).

Several real disparities are obvious in these groups' responses. For example, while suppliers most ranked "speed" as

the greatest benefit, it was ranked among the lowest by the end-users.

And while appearance was identified as the clearest winner among benefits to end-users, it received a tepid response at best from suppliers.

Have Suppliers Misunderstood Their Customer's Desires?

In following up on the survey, it was indeed found that end-users are excited about powders ability to provide not just a better process—but also a better part. The process is not driving the demand, the end-result is.

Similarly, messages like environmental compliance that was categorized as a high priority by over half the end-user respondents received the largest quantity of low scores by suppliers. Perhaps the powder coating supply chain, so accustomed to the environmental acceptance of powder coating, has taken this benefit for granted to a new market, which is wrestling with environmental issues in

FIGURE 2

Survey results ranking the perceived benefits of UV powder coating

Question: How would you rank the importance of these listed benefits of UV-cure powder coatings?

End-Users			
	High	Medium	Low
Speed	17%	17%	67%
Economic Savings	33%	0%	67%
Appearance	83%	0%	17%
Performance	17%	67%	17%
Environment	50%	17%	33%
Suppliers			
	High	Medium	Low
Speed	65%	12%	23%
Economic Savings	50%	23%	27%
Appearance	15%	38%	46%
Performance	38%	23%	38%
Environment	31%	4%	65%

a world not yet accustomed to powder coating.

In a recent interview, Jay Fegeley, manager of advanced technology for Knoll Inc., East Greenville, Penn., said, "UV powder allows our designers to design for the environment, which is always a goal at Knoll, and still meet the needs of the market. We want to be known for high performance as well as distinctive and enduring designs. UV powder enables us to achieve both." This comment is perfectly in step with the results of the end-users surveyed.

The ranking of economic benefit is another puzzling outcome of the survey. The data suggests that suppliers are more concerned with cost savings of UV powder than the customer.

There may be several reasons behind such a result:

1. Somebody is lying. Just as many prospective customers dismiss cost on the front end to have discussions about other merits only to return to cost in the end, it may be that in a survey, cost becomes a postponed issue to prospective customers.
2. Sometimes the survey also presents results of how we want to be perceived rather than who we actually are. Many customers have trouble readily admitting to being concerned with dollars when more abstract issues are on the table.
3. It is also possible that the results do in fact reflect a prioritization that places appearance, performance and environment ahead of cost. After all appearance, performance and environment have been strong drivers in helping powder coatings to achieve the spectacular market penetration in the industrial products sectors over the last few decades.

The Price Barrier

Survey respondents were asked about the barriers to entry or conversion to UV powder due to the price of various pieces of the puzzle (Figure 3).

FIGURE 3

Survey results showing the effect of cost on the question of entering or converting to UV powder

Question: Which cost component do you feel is most critical to the overall cost decision to convert to UV-powder coatings?

	End-Users	Suppliers
Capital cost of UV-curing equipment	15%	52%
Capital cost of application equipment	31%	6%
Capital cost of other equipment (ovens, etc.)	15%	12%
Powder cost	31%	27%
Operating cost	8%	3%

Again, the results show a real gap between some of the suppliers' impressions about cost and those of the end-users. For example, the UV lamps themselves are perceived by suppliers as the major impediment (52%) but suppliers ranked this low on the list (15%) with powder cost and application equipment costs topping their list.

One reason for the supplier's view may be the frustration at the slow rate of adoption of powder coatings in a new market where the major equipment difference is the additional UV equipment. Since the UV equipment is among the only hardware differences between a UV and traditional powder line it may be (unfairly) receiving the blame for the poor results to date. There may also be a frustration with the lack of available options in UV-curing equipment to date and a perception that this has had a negative effect on the market.

When asked to rank the biggest reasons that they feel UV powder is not growing more rapidly, 50% of the end-users responded that equipment cost was their number 1 or number 2 most significant factor.

Two-thirds of the end-users ranked powder cost as their number 2 or number 3 choice as the most significant factor that limits growth.

Two-thirds of the respondents ranked the cosmetic or appearance properties for the currently available powders as their number 5 or number 6 reason. Eighty percent ranked the performance of current UV powders among the lower ranked factors (4-7).

The suppliers agreed with the end-users in this conversation, ranking equipment cost as the number 1 culprit 51.8% of the time. One-third of the suppliers ranked powder cost as their number 2 reason for the slow adoption. (Of course, since many suppliers surveyed were powder formulators, it is not hard to understand why there might be some bias in the results.)

Interestingly, the cosmetic and performance properties were not as well distinguishable as factors among suppliers who ranked them virtually even across the board (about 15% of the respondents ranked them anywhere from first to last in contributing to the slow growth of UV powder.)

Conclusions

This survey may raise more questions than it actually answers. It certainly creates the desire to probe more deeply into some aspects.

It is fair to say that the suppliers of UV powder and the associated

equipment are walking around with a vastly different perception of the benefits and obstacles to its growth than those they are calling on.

It points out the need to better understand the customers' drivers—these may include opportunities for color, texture and style that other technologies do not provide. It also points out that, although the message may be old hat to powder providers, the environmental and performance attributes of powder are as attractive to this new market of powder customers as these factors were in the past to markets, which now take powder for granted.

For the time being the study seems to put the question of cost on hold as current and potential users focus attention on the appearance and performance properties of UV-powder coatings. ▀

—Paul Mills is an industry consultant, UVPowerhouse, Cleveland, Ohio.

New Product Spotlight

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