

The “real” supply chain in the coatings industry

Reaching out to designers in the early stages of the product development cycle will be important for coatings manufacturers in the years ahead.

The convergence of technology and geo-political events has created a world in which the competition for jobs and production of goods and services is now opened up to many countries of the world.

This trend affects the paint and coatings industry in several ways. First, the production of goods and services continues to move offshore. As a result, higher energy prices are being created by demand from the countries that are growing their manufacturing base as some of these industries relocate and production expands. Also, manufacturing markets within U.S. borders are growing at much slower rates, resulting in overcapacity due to the above mentioned forces, and at the same time there is increasing competition for smaller amounts of business.

In a previous column (*Coatings World* July 2006), Chemark explored the shift from the information to the conceptual age. This shift was outlined as a key path forward for the industry, which involves reaching out to the designers who affect durable goods designs in the very early stages of the product development cycle. This

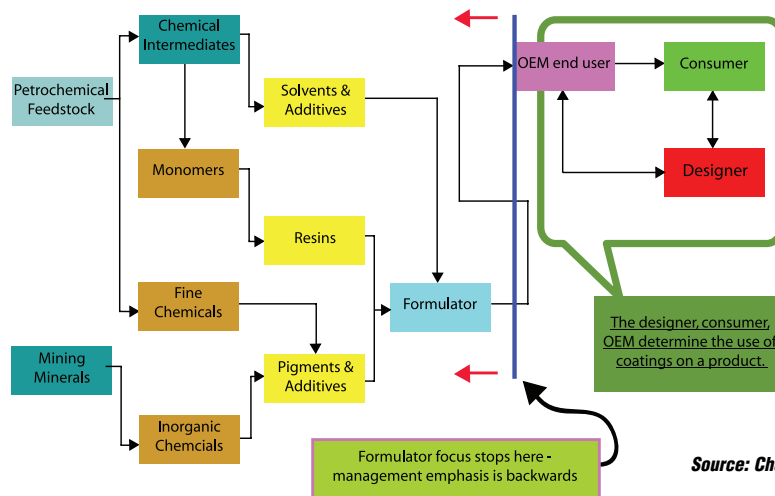
design stage is currently not a focus for the typical coating manufacturer and certainly not for the raw material or intermediate supplier.

Historically the paint and coatings industry has focused on the technical specifier and viewed them as the customer. Detailed specifications and designs of a product being readied for production occur after the conceptual design of the product has been fixed. Specification of a coating is a minor thought process in the product design even when it can have a major affect on the performance and perception of the product in question.

Therefore the value of the coating is relegated to compete on the basic property and application engineering variables. In the worst case price/volume relationships will be the defining part of the competition.

Increasing energy and raw material prices have been a concern of the industry for the past few years. Therefore many companies have had to focus on the “supply chain” issues regarding raw material prices and manage their formulation/performance criteria very closely. However, this focus has not paid enough attention to the entire or “real” supply chain. The figure below illustrates this

The Real Supply Chain in the Coatings Industry



Source: Chemark Consulting

point.

The raw material and chemical knowledge flow of the coating industry is complicated, especially with the many different end uses that exist in the \$72 billion global coatings industry. The blue line in the figure shows how the traditional formulator views the supply chain with the focus being from the “back end” of the OEM customer back through the raw material supply chain. Forward of this divide however is where the future is determined.

The design part of the supply chain is a unique industry in itself. It has three main participants:

- *University product design schools.* These educate students in the process of doing creative and practical engineering. It is an incredibly diverse educational requirement and a highly specialized skill. It attracts students who like to work with their hands and do not like “art.” They are practical, creative individuals who want to see something come of their hard work;
- *Independent design consulting firms.* Almost 100% privately owned in the \$8-50 million dollar revenue range. All of them work on an incredibly diverse range of durable goods designs. All of course utilize coatings and they specify most of them;
- *Design departments of large firms.*

For the industries using coatings, these three entities have a major influence on which coatings technologies and designs are to be used in the future. They all depend on coatings technology to do its job and, when a project is nearing completion, specify the coatings to be used.

When it comes to how these three entities get information about coatings products, there is little focus by the typical formulator to understand what the designer’s concerns are and what opportunities may lay in working farther up the supply chain to support the use of coatings in forward looking product designs.

The coating industry can play a major role in discovering how the tech-

nologies we represent can actually make differentiable designs achievable. Accomplishing this goal would potentially contribute to placing the manufacturing industry in the U.S. in a more competitive global position.

The understanding of this design mix and how the front and back-ends of the value chain works now and, more importantly, how it could be improved, is an opportunity that the industry needs to spend some time thinking about and