



Cytec Helps Customer Develop Innovative UV Curable Toner For New Food Packaging Printing Applications

A manufacturer of innovative digital printing equipment and toner supplies asked Cytec to help it develop a new line of UV curable toner for improving the properties of emerging food packaging printing applications.

Hand-in-hand with developing the powder coating resin for the new toner was having the expertise for conducting specialized migration testing for food packaging, and gaining the required FDA approvals.

Of the three leading suppliers of polyester powder coating resins, Cytec was chosen because of its worldwide leadership in UVECOAT[®] radiation curable resins for powder, and because of its extensive knowledge of food contact legislation.

Key challenges for developing the UV curable toner included having a constant charging level which would control the smearing of toner on carrier surfaces after a press run of 50,000 copies of A4 sized paper, and having no odor during the application.

Additional performance attributes versus conventional toners were required as well, specifically, improved chemical resistance, temperature resistance and scratch resistance.

Cytec developed a value-added solution which combined the right technology with the right technical support.

First, the key property of glass transition temperature combined with an excellent reactivity was only possible with Cytec's UVECOAT technology. Second, Cytec developed a novel grinding and packaging approach. At its center was support from a Cytec toxicologist who served as an interface between the customer and the end-application migration testing lab. The toxicologist helped the customer interpret the results and gain regulatory approvals.

Now the customer has the ability to provide advanced food packaging printing, plus other commercial printing applications that also require high performance properties along with compatibility with production equipment.

Even better, the customer believes the new technology, combined with its duplex curing station, strongly positions it to grow new UV curing markets for future profits.

Cytec is the recognized leader worldwide in UV and EB curing technology for a broad range of emerging coating surfaces and applications. We offer our customers a strong base of manufacturing, R&D, and technical resources—technology ahead of its time—for developing the value-added solutions they're looking for both regionally and globally.