

Responding to Market and Consumer Demand for Clean Label Ingredients

The clean label movement is being driven by consumers demanding a return to “real” ingredients and greater transparency, not only in foods but also in nutraceutical products. Colorcon’s Kelly Boyer, General Manager, Film Coatings, tells Dr Kevin Robinson how the company is responding to this trend.

In the nutritional supplement sector, the desire for products that contain natural, familiar ingredients that are easy to recognise and understand is growing apace. In response, manufacturers are looking for efficient and consistent manufacturing practices that deliver label-friendly ingredients and, at the same time, meet complex regulatory requirements.

“Seventy five per cent of consumers in the US say that they read the nutritional and ingredient information on food labels,” notes Kelly: “Clean label is being pushed along by consumer perception and is not specifically defined or regulated. A product is more likely to be considered label-friendly if the ingredients are fewer in number, recognisable and pronounceable, naturally derived (rather than artificial), non-GMO and sustainable.”

In answer to the growing market need, Colorcon launched the world’s first certified organic coating, NutraPure, in the US back in 2012. NutraPure is guaranteed to be non-GMO and non-allergenic, comprising 100% plant-derived ingredients and no synthetic polymers. “We have also responded to the clean label movement by conducting extensive development to commercialise a range of stable, pigmented coating products; these are based on naturally derived colourants and have been specifically designed for the nutritional market. Colorcon has always taken the view that it’s best to step back, understand a problem and its challenges ... and then take the time to develop really good alternatives,” she adds.

Navigating the Practicalities of Clean Label

Recently, mounting political and social pressure has resulted in legislation that aims to suspend the use of titanium dioxide (TiO₂) in foods, which is classed as E171 when used as a pigment in food. As a film coating ingredient, TiO₂ provides opacity and protection to active ingredients from light, reducing the potential for degradation and extending the product’s shelf-life. As a pigment, it also helps with

branding, enabling consumers and end users to correctly identify their medicines or supplements.

Colorcon has risen to address consumer concerns regarding the inclusion of TiO₂ in food products. Through extensive reformulation, the company can provide manufacturers with alternatives that meet consumer appeal — excluding TiO₂ and without the inclusion of synthetic colourants. With a new range of non-synthetic colour options, a clean label palette can now be achieved. In addition, talc (E553b), which acts as a glidant, is also widely used in food, dietary supplement and pharmaceutical applications, and has recently been targeted for removal from labels (mainly in the US).

Meeting Consumer Demand for Clean Label

As a key supplier to the nutraceutical industry, Colorcon provides specially formulated coatings through the Nutrafinish product line, fully supporting the continued market growth in this sector while keeping pace with consumer trends and constantly changing regulations. Colorcon offers unrivalled regulatory knowledge and support, with an in-depth understanding of clean label requirements.

The regulatory compliance requirements for dietary supplements are extremely complex and vary from region to region. For example, consumer influence has recently resulted in restrictions on the use of some synthetic colours in the food sector in the EU, and there is a growing need to gain regulatory approval for new colourants in both the US and EU. All colourants added to foods or dietary supplements must comply with strict requirements for quality and safety, which are enforced by local regulatory agencies; this applies to both traditional synthetic colours and non-synthetics.

To provide a specific solution for nutritional and dietary supplement coatings, Colorcon took the decision to brand its specific solutions under one product umbrella.

Nutrafinish film coatings provide manufacturers with the certainty that all the components in the formulation are carefully selected to meet the regulatory requirements for this market sector and provide clear alternatives to fulfil clean label claims.

All Nutrafinish coating products are made in the same Colorcon facilities as the pharmaceutical-grade Opadry coatings and utilise the same production process. However, alternative food-grade and clean label ingredients are selected for the Nutrafinish brand to meet the specific needs of the dietary supplement market. This distinction between the two coating product lines provides clear brand differentiation and allows for a rapid response to ever-changing regulations and consumer demands.

Choosing the Right Partner to Transition Your Products

With coating formulas that are unique to the nutritional market, Colorcon's Nutra Natural Advantage extended product line provides clear and distinct positioning. Nutrafinish products are designed to deliver aesthetic appeal and can add colour for both branding and differentiation. Clear and pigmented coatings provide gloss and improve dedusting, whereas taste-masking and odour barriers improve consumer acceptability. Furthermore, environmental moisture protection for sensitive cores enhances product stability and improves shelf-life. Plus, efficient processing means that the coating systems are simple to use across a wide range of substrates and coating equipment. TiO₂-Free is Colorcon's most recent product solution for clean label and the fourth product addition in the past 2 years, following the launch of High Performance coating, Sugar Film coating and the Easy Swallow product (Figure 1). These coating options continue to evolve to meet customer requests and regulatory changes.

For example, High Performance reduces the coating process time by up to 40% and cuts preparation times in

half. Manufacturers gain improved productivity across all types of coating equipment while still delivering a consistent and premium finish. This is ideal for high-volume nutritional/dietary supplement producers that may have continuous coaters. Moisture Protection Coating provides a barrier to moisture uptake, resulting in improved final product quality and in-use shelf-life.

Easy Swallow Coating improves the aesthetic appeal of tablets while increasing the slip when the tablet meets water. This is important because many dietary supplement tablets are quite large, often 1000 mg, so making tablets easier to swallow is a big plus for consumers. To improve the productivity of traditional sugar coating, a new aqueous three-step system, Nutrafinish Sugar Film Coating, results in a traditional high gloss finish and rounded appearance while significantly reducing process time from days to hours.

In Conclusion

Summing up, Kelly notes: "Colorcon provides the scope for our customers to reduce both complexity and time-to-market by delivering high quality products. We use carefully selected ingredients from commonly used food sources or approved food additives that meet local regulatory needs and support clean label claims. This is all backed by our superior and dedicated technical support, along with regulatory expertise."

She concludes: "We're excited to announce that NutraPure — the world's first USDA-certified organic film coating — is now also available in Europe, further meeting the industry's needs for clean label ingredients and solutions."

FOR MORE INFORMATION

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Figure 1: The Nutrafinish brand includes several different formulations and coating categories, providing a choice of functional property products

