





Is serialization enough to protect your Pharma supply chain?

Counterfeit drugs are a major problem for the pharmaceutical industry and with the significant growth of illegal online pharmacies, patients are exposed to even more counterfeit products.

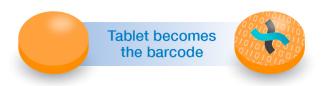
Serialization has drawbacks and it's been proven that packaging based security measures can be ineffective, as products can be separated from their original pack whilst the packaging can be reused, copied or resold across the globe.

What's the Solution? ... Smart Medicines

Through a secure link between the physical and digital world, medicines are made smart with on-dose taggants that can be authenticated throughout the supply chain.

Product authentication with Colorcon is a highly resilient solution and provides a level of supply chain authenticity and transparency not previously available to the pharmaceutical industry.

Throughout the supply chain the tablet (or capsule) becomes the barcode; it's unique, digitally read and recorded, providing instant authentication. Novel mobile app enables patient level authentication of their medicine and engagement directly with the brand.



Simple to Adopt Direct application using new or existing Opadry® Film Coating System or Opacode® Printing Ink

Easy to Authenticate

Taggants can be verified using smartphones or mobile readers

Secure and Elegant Tablet or capsule becomes an invisible barcode linked to a secure database

Cost Effective No capital equipment investment and minimal impact on tablet cost.



Meets the FDA Guidance in support of On-Dose Authentication*.

- Protect company reputation and brand integrity
- · Secure product and improve patient safety
- Smart medicines to connect with your patients

*Ref: Guidance for Industry - Incorporation of Physical-Chemical Identifiers into Solid Oral Dosage Form Drug Products for Anticounterfeiting. https://www.fda.gov/downloads/drugs/guidances/ucm171575.pdf accessed April 2020

Deliver high-performance products — with Colorcon

Choose Colorcon, leader in pharmaceutical solid oral dose solutions, as a formulation partner of choice in every phase of your product development.

Film Coatings:

- Optimized formulations specifically for your application and regulatory needs including customized colors and color matching
- Innovative products for mechanical integrity, gloss, pearlesence and environmental protection
- Brand enhancement concepts, consulting and services to build a strong brand image and stand out from the competition.

Formulation Technologies:

- Full range of functional excipients
- Technologies for development and production of delayed/ enteric release and extended/controlled release tablets and multiparticulates
- HyperStart® service and extensive applications data to provide starting formulations to save you development time and cost
- Extensive formulation know-how and technical support to achieve the exact drug release profile desired

Contact your Colorcon representative or call:

North America Europe/Middle East/Africa +1-215-699-7733 +44-(0)-1322-293000

Latin America India China

+54-11-5556-7700 +91-832-6727373 +86-21-61982300

colorcon.com



© BPSI Holdings LLC, 2020. The information contained herein, to the best of Colorcon's knowledge, is true and accurate. Any recommendations of Colorcon with regard to the products provided by Colorcon are made without warranty, either implied or expressed, because of the variations in methods, conditions and equipment which may be used in commercially processing the products. Colorcon makes no warranty that the use of the products provided by Colorcon will not infringe any trademark, trade name, copyright, patent or other rights held by any third person or entity when used in the customer's application. Any regulatory information provided is intended solely as initial general guidance. Each customer is responsible for determining the regulatory acceptability of the finished product in their specific application.