

Application Brief CSSAB-001

The Brand Management and Intellectual Property Solution

Introduction

The need to protect intellectual property and other brand owner rights is a critical concern in today's global economy. Analysis of international trade data suggests that hundreds of billions of dollars worth of internationally traded products could have been counterfeit or pirated in 2005; an amount that is larger than the national GDPs of about 150 economies.¹ This same data also shows that counterfeit and pirated products are being produced and consumed in virtually all economies, and that in recent years there has been an alarming expansion of the types of products being infringed; from luxury items such as deluxe watches and designer clothing, to items that have an impact on personal health and safety such as pharmaceutical products, food and drink, medical equipment, personal care items, toys, tobacco and automotive parts.

Business Impact

While the challenge of facing this type of illicit activity may seem overwhelming for a variety of reasons, the need to do so has never been more critical. Aside from the loss of revenue, there are other considerations that are just as significant. Many of these products pose a significant threat to health and safety due to standard quality control, and have even been shown to be harmful to the user.² Counterfeiting and piracy also have a long term negative impact on innovation and brand recognition, and channel a considerable portion of revenue to criminal networks, organized crime and other groups that disrupt and corrupt society.³

Smiths Detection Solution

While the problem continues to grow, prevention of this type of activity is becoming more difficult to achieve and until now, no long-term solution has been offered. Smiths Detection, however, recently partnered with the world's leader in covert marker technology to offer a complete, customized, brand management and product authentication solution that will work to protect your intellectual and brand recognized property, IntelliMark. This solution is multifaceted and dynamic, allowing you to stay one step ahead of counterfeiters and other infringers.

What is IntelliMark?

Individualized information laden covert markers are designed, manufactured and scientifically tested. These covert markers are then built right into your finished product. At the time product authentication testing is required, analysis is performed with user friendly trace detection instrumentation and 24/7 interactive assistance from the Smiths Detection team of scientists. Smiths Detection is the global leader in applications

that offer advanced integrated security solutions for complex real world problems. Smiths Detection uniquely addresses the needs of our global blue chip customer base. The ability of Smiths Detection to now offer covert markers coupled with

customized and individualized trace detection capabilities for their detection, especially in finished product, makes this an ideal solution that works.

An example of this unique protection solution is described. Pharmaceutical tablets containing covert markers in their coating layer were formulated and manufactured. The markers in this example were made of a specific identifying chemical and labeled with an amber colored "R". While these covert markers are easily observed and characterized using Smiths's trace detection instrumentation, they are invisible to the naked eye.



Figure 1. Tablets containing covert markers throughout the tablet coating

Figure 1 shows these tablets as they are observed using the naked eye, as well as when visualized using a Smiths Detection trace detection system. Both the chemistry and the labeling provide manufacturing and distribution information known only to the product owner.

Figure 2 shows the infrared spectrum of this same covert marker compared with the infrared spectrum of the tablet surface. This infrared data chemically identifies the covert marker. The combination of visual and chemical inspection and identification enables authentication of the branded product. Infrared microspectroscopy is one of a variety of instrumental methods used to detect and identify these covert markers.

Figure 3 shows two different covert markers that have been designed and manufactured for two of our clients. These markers show the capabilities of this dynamic system. The

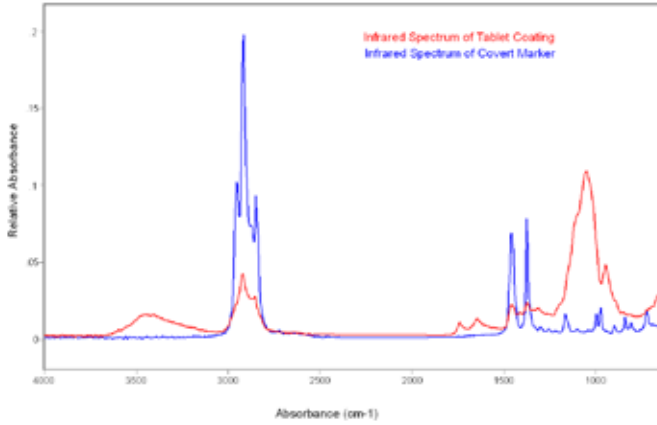


Figure 2. Infrared spectral comparison (chemical identification) of the tablet coating and of the covert marker

markers in figure 3a are text only marker whereas the markers in figure 3b are image based.

The ability of Smiths Detection to provide custom designed and individualized covert markers in a highly secured environment, coupled with proven expertise in trace detection capabilities offers the only solution for protection of your intellectual property at all levels within the supply chain. No other option available to deter counterfeiting and piracy offers the individualized, dynamic, cradle-to-grave solution required to address this complex problem.



Figures 3a & 3b. Images of custom designed markers photographed using high-power microscopes

Footnotes and References

- ¹ The Economic Impact of Counterfeiting and Piracy, Executive Summary, 2008, www.oecd.org.
- ² <http://www.ul.com/newsroom/anticounterfeiting/risk.html>
- ³ The Economic Impact of Counterfeiting and Piracy, Executive Summary, 2007, www.oecd.org.