



Secured by Dotz™ Authenticated Face Masks

A solution that can save lives

Certain face masks may be worse than wearing no mask at all.

Concurrently, quality constructed facemasks have been shown to have higher than a 99.5% filtration efficiency against virus carrying aerosols and particulates¹. The CDC chief just recently stated: “Masks Are a Better Covid-19 Defense Than a Vaccine”². With this discrepancy in facemask quality, it is imperative that consumers are provided with tools to identify the quality of the masks they entrust with their health.

While Personal Protective Equipment (PPE) has always been a vital part of the healthcare supply chain, it has recently transcended into an essential commodity that everyone needs. This recent change has sparked a global “gold-rush” for PPE, creating havoc in its supply chain, pricing, and availability. As countries, hospitals, retailers, and new emerging brokers’ appetite for PPE was increasing sharply; N95 masks, KN95 masks, gowns, and other important items became scarce. As it commonly happens in cases of uncontrolled demand, quantity came over quality, and an enormous wave of counterfeit PPE flooded the markets. Tens of millions of counterfeit face masks were seized in California alone since the beginning of the pandemic.

Subsequently, consumers and HSE Stakeholders alike are currently unable to determine the source and efficiency of respiratory face masks, resulting in user mistrust, fear, and potentially (for organizations) future liability claims.

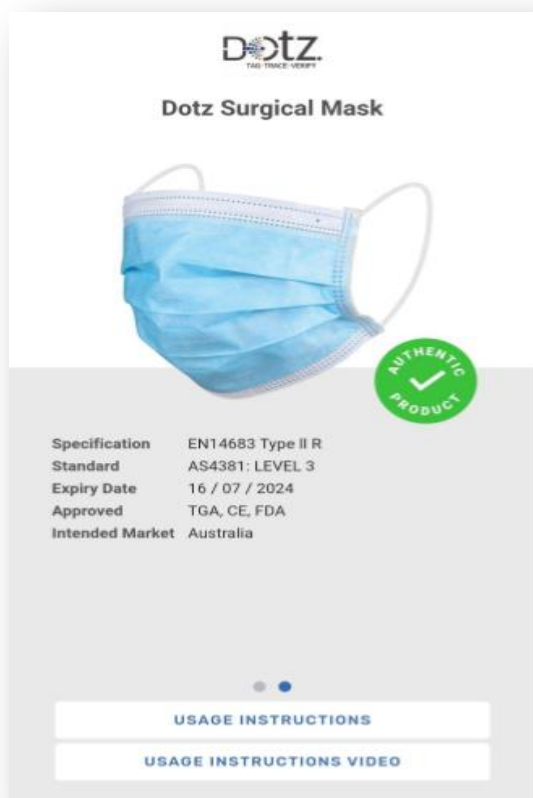
When it comes to PPE and respiratory face masks, we should aspire to eventually apply the same level of quality standards that are used in the Pharma industry. Product validation and authenticity are crucial as it is practically a matter of human life.

¹ Konda. A. et-al; ACS Nano 2020, 14, 6339–6347.

² CDC Chief: Masks Are a Better Covid-19 Defense Than a Vaccine. US Senate Appropriations Subcommittee Hearing on Coronavirus Response 16/9/20.

To tackle this issue, Breathe Medical has decided to apply the most advanced Track & Trace and brand protection technologies in its high quality respiratory face masks, using both digital and physical security elements,

Using this solution, termed “secured by Dotz”, the product can be authenticated anywhere throughout the supply chain, by a simple scan using a mobile phone. When users scan a product, they are directed to a secure website that provides information on the product’s origin, journey, compliance, certificates, etc. Furthermore, the “Secured by Dotz” software platform is also able to tell the user if the product is sold in an authorized territory, and by an authorized retailer.



The second part of the solution is a unique chemical marker placed on the box, which can only be authenticated using a special detector provided by Dotz.

"Secured by Dotz" technology enables users to verify mask authenticity, and be better informed, anywhere, simply by scanning a QR code with their mobile phone.

"Secured by Dotz" technology enables the End-2-End tracing and authentication of facemasks throughout the entire supply chain, down to the end consumer, securing Breathe Medical's ability to provide high-quality face masks from a reliable source.

"Secured by Dotz" authenticated facemasks ultimately create a safe and transparent supply-chain and provide your organization with the peace of mind and certainty that masks you market are effective and safe.

How does the "Secured by Dotz" supply solution work:

- Each "Secured by Dotz" label contains a unique product identifier (UDID) AND a unique chemical code based on Dotz's technology.
- Consumers may scan the QR code using their mobile phone to view product and authenticity information. Each scan is geo-registered in the system.
- Authorized users may then log-in for additional product information and scan analytics.
- Users can track and trace batch or individual product journey through the supply chain by Dot's unique chemical marker code, using a dedicated detector.



The "Secured by Dotz" authentication solution is a key differentiator in the current PPE market situation