



Efficient. Reliable. Safe. Traceable. Sustainable.

MICRO - BARCODES FOR INJECTION MOULDING

Traceability of plastic parts is essential to achieve efficient production, to secure compliance and to achieve the highest quality. imZERT puts critical information directly on the plastic part.

imZERT is a new method providing accurate micro-barcode markings on plastic parts during injection molding, for the first time allowing reliable traceability back to the injection molding process, which is not possible with i.e. stickers, labels, bags or manually handled cassettes.

Benefits of directly molded micro barcodes - in and after production

imZERT ID boosts LEAN methods in production and guarantees direct savings. When faults arise in high-volume molding, easily scanned ID helps to save + 90% of the parts that are faultless. Benefits become even larger when products are filled, assembled or worked-over - rule-of-thumb says each step in manufacturing adds 10 times potential downside when problems arise. Recalls become more targeted and limited when critical ID is verifiable on the molded parts.

Fake products affect more and more companies

Covert imZERT barcodes is a low-cost method to detect if a product is a counterfeit, to avoid large costs for replacement and/or insurance claims arising due to damages, and ultimately reducing costs of investigation dramatically. By some estimates, 6 to 8% of medical devices are already counterfeits, while global trade in all counterfeit products will grow to 991 bn\$ in 2022.

Quality directly impacts bottom line

The highest level of quality demands for pervasive traceability. In medical devices, McKinsey has estimated that the Direct Cost of Poor Quality can be as high as 4.5 to 6.2 % of annual sales - while proper measures can lead to savings of 1.5 to 3.0 % of annual sales and protect against up to 1 to 3 billion \$ in costs related to re-calls. ¹

imZERT is an innovative method for embedding machine-readable information directly in the surface texture of a plastic product. High quality and high visibility 2D micro-barcode can be applied to any size parts directly during molding - without affecting production efficiency. No other marking method has this capability. It is completely safe and sustainable in production and use.

"WORLD'S SMALLEST BARCODES"
for injection moulding



Tool insert, showing 2 microstructure barcode areas, surrounded by molded parts. 10x10 GS-1 Datamatrix. Side length is 2.5 - 3.0 mm. Smaller and larger is feasible. Any information content. Machine-readable.

¹"Capturing the value of good quality in medical devices,"
McKinsey report Feb 2017

