



**GIVES YOUR PRODUCT AN IDENTITY**

**PRODUCT AUTHENTICATION  
AND IDENTIFICATION FOR EVERY STEP  
IN THE LIFE CYCLE**



PRODUCED  
IN THE EU

# TAGTEC

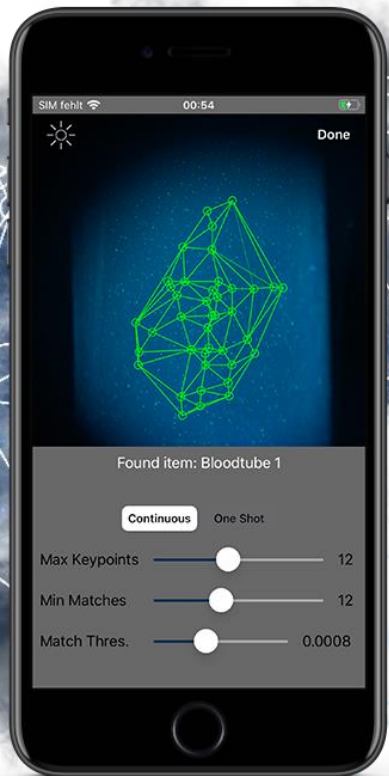


TAGTEC is a groundbreaking, market-ready technology, that gives plastics a distinctive signature identity – similar to a fingerprint.

Markers (taggant particles) added to the masterbatch create an intelligent plastic that can be used in a variety of applications. It carries the added information like DNA. Which information, you define.

### The TAGTEC advantages

- Product safety
- Material detection
- Single part detection



**TAGTEC**

# THE TAGTEC FORMULA



**+** TAGTEC-Markers  
**+** TAGTEC-Sensors  
**+** TAGTEC-Masterbatch

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**=** **INNOVATION<sup>3</sup>**

Three innovative, leading companies have joined forces to take the production of intelligent plastics to a new level.

The markers, which can be activated by sensor technology and are added during the production of plastics, enable the secure transmission of product- or material-specific information. Just as if the product could tell where and how it was made, what it contains or whether it is an original or an imitation.



COMPETENCE IN **MARKERS**



COMPETENCE IN **SENSORS**



COMPETENCE IN **MASTERBATCHES**



# HOW DOES TAGTEC WORK?



**SELECTED MARKERS  
(MARKER SYSTEMS)**

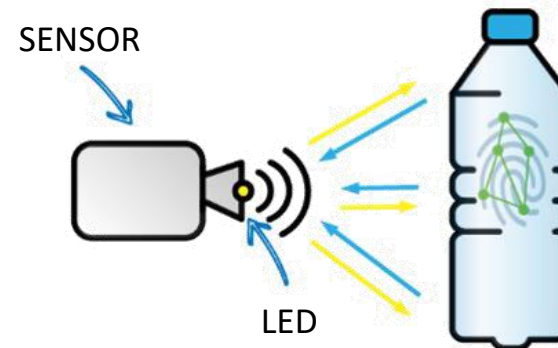


**INTEGRATED INTO THE  
PRODUCT BY MASTERBATCH**

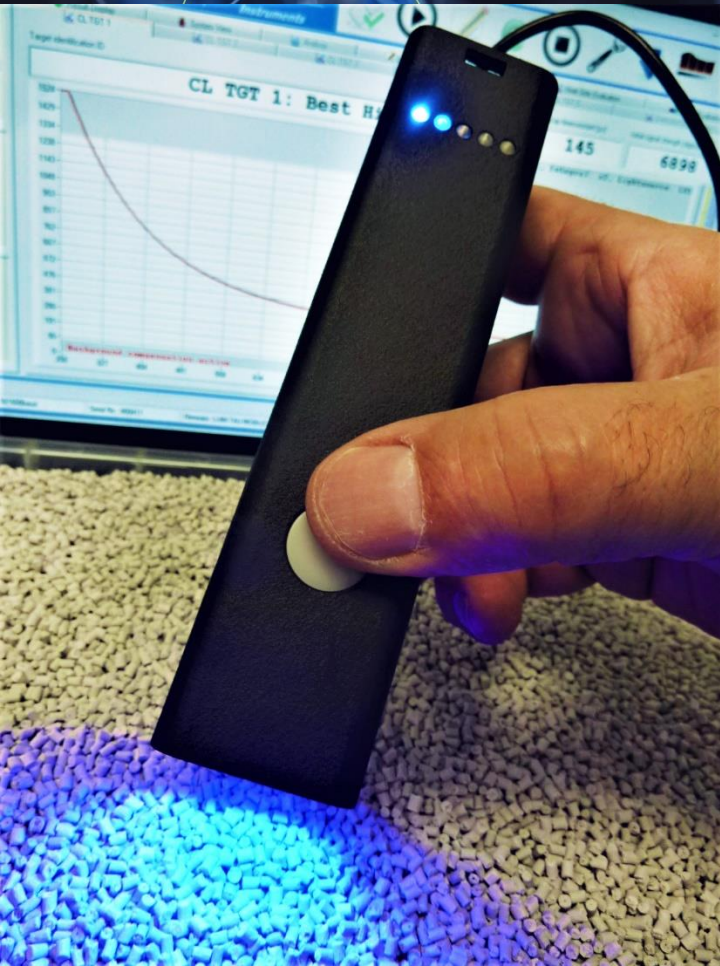


**CAN BE ACTIVATED AND  
READ OUT WITH SELECTIVE  
SENSORS**

TAGTEC uses the principles of encryption (coding) and decryption (decoding). The marker-bound, encrypted information can be decoded using patented technology via special sensor technology - reliable and forgery-proof.



# THE DECRYPTION



In order to decode the embedded information, two methods are available:

**STAR**, in which the reading takes place on a defined area, for example in a bottle cap. A sensor connected to a cloud illuminates the previously defined area, reads out the product information stored there and transmits it to the cloud.

**TAU** is the name of the system in which information can be read at any point on the product. The response signal depends on the mixture of taggant particles.

## Solutions tailored and optimised to ...

- Necessary product safety
- Product-specific applications
- Combined functionalities

# SECURITY – PROTECTION AGAINST COUNTERFEITS



ORIGINAL

COUNTERFEIT



The worldwide economic damage caused by counterfeit products is immense. This problem was the starting point and incentive for the development of TAGTEC.

Protect your products with TAGTEC technology! The method is based on the combination of security markers and sensors. By selecting the marker-sensor pairings, you determine the level of security you require.

More product safety - for you and your customers.



# SECURITY – PROTECTION AGAINST COUNTERFEITS



# SUSTAINABILITY – FOR AN OPTIMUM RECYCLING OF MATERIALS



With TAGTEC, it is possible to bring packaging from any recycling waste management scheme (Germany: »Gelber Sack«) into a closed technical production cycle – an active contribution to resource and climate protection. In addition, the technology enables the analysis of material components, for example the control of approved ingredients.

TAGTEC enables an effective circular economy, ensures more sustainable products - and thus less waste, less environmental pollution and more future.

## **TAGTEC recycling applications:**

- Additional sorting criteria by application, product group etc.
- Differentiation between FOOD material and NON FOOD material during recycling
- Further freely definable recycling sorting options
- Recovery of valuable ingredients with defined properties and additives



# INFORMATION – DETECTION & CODING OF SINGLE PRODUCTS



TAGTEC gives plastic parts an individual product DNA. This makes it possible to fully document production processes - from manufacture to distribution. It does so discreetly and invisibly, without visually disturbing codes, and can be used by all partners in the supply chain. Always individually tailored to your needs. This makes TAGTEC forward-looking and »blockchain ready«.

## **Advantages of TAGTEC STAR coding:**

- Marker is anchored tamper-proof in matrix
- Marker arrangement cannot be copied
- Positioning on the surface can be freely selected
- No visual interference
- Individually programmable for all supply chain partners

# TAGTEC – ONE TECHNOLOGY, COUNTLESS POSSIBILITIES



Product authentication and identification with the TAGTEC marker-based system offers numerous application possibilities:

- Sorting and error-free separation of recycled material
- Optimisation, documentation and automation of product processes
- Protection against counterfeiting
- Function control
- Process control
- Dosage control
- Material control and material identification

TAGTEC offers security, sustainability and transparent information for your products throughout the entire supply chain. Tailored to your needs.

# TAGTEC – TEAM + PARTNERS OF DEVELOPMENT







**TALK TO US,  
WE ARE GLAD TO BE THERE FOR YOU.**



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