

# PUREWHITE™

The mineral, **clean label** and titanium-free alternative for whitening and optical finishing in food

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QUALITY CONTROL

# What is PUREWHITE™

**PUREWHITE™** is a technological formula of **100% mineral** origin designed to replace titanium dioxide (TiO<sub>2</sub>) as a whitening and colouring agent in food applications. This innovative solution contains no preservatives, is **nanoparticle-free**, and is completely **titanium-free**.

Its simple declaration allows for **clean label** designation, responding to current market demands. It is **classified as "colour"** in the EU, and all its components are authorised for food use globally, ensuring maximum regulatory peace of mind for manufacturers.



# Applied Science and Technology

## Single-Grain Fusion Technology

Proprietary technology that generates a unique crystalline microstructure for maximum efficacy

## Refraction Control

RI 1.54–1.59 optimised for a stable and homogeneous optical finish in various matrices

## Light Reflection

Efficiently reflects light to deliver a brilliant white with few application layers

Manufactured using our proprietary **Single-Grain Fusion Technology**, PUREWHITE™ develops a crystalline microstructure that optimally **reflects light**, delivering a brilliant white with few application layers. Its precise control of the refractive index promotes a stable and homogeneous **optical finish**, adapting perfectly to a wide range of food matrices.

# Key Benefits for Your Brand



## Effective TiO<sub>2</sub> Replacement

Completely replaces titanium dioxide without sacrificing whiteness or surface brightness, maintaining the expected visual quality



## Guaranteed Clean Label

100% mineral formula, free from preservatives, nanoparticles, and titanium for cleaner labels



## Improved Texture

Increases coating crispness and provides a more pleasant bite to the final product



## Multifunctional

Acts as a firming agent, acidity regulator, stabiliser in dairy, yeast nutrient, and calcium source



## Formulation Efficiency

Low dosages achieve uniform white coatings, optimising production costs

# Main Applications

1

## Confectionery and Pan-coating

Integrate into the **sugar solution** or mix with crystalline sugar **before cooking**. Provides brilliant white, attractive **gloss** and a perfectly smooth surface for premium products.

2

## Dairy and Plant-based Beverages

Functions as a **stabiliser** and aids **opacity** in calcium-enriched matrices, improving the product's visual appearance.

3

## Processed Meats

Used in **brine** or **direct injection** to **maintain colour and texture** in industrially processed poultry and pork products.

4

## Brewing

Acts as a **yeast nutrient** without negative impact on the final product, optimising the fermentation process.

- ❏ **Important technical note:** PUREWHITE™ is insoluble in water; for use in aqueous media, emulsification is recommended to achieve homogeneous dispersion and optimal results.

# Regulatory Compliance and Labelling

## European Union

- Ingredients covered as **E170** under Reg. (EC) 1333/2008
- Minerals in Annex II of Reg. (EC) 1925/2006
- Annex III of Reg. (EC) 1170/2009
- Declaration may be **omissible** according to art. 20 et seq. of Reg. (EU) 1169/2011

## United States

- Ingredients covered in **21 CFR 73.1070**
- **21 CFR 184.1191 (GRAS)** - Generally Recognised as Safe



**"Quantum satis" Principle:** Authorised QS in the vast majority of categories where its use is permitted, offering flexibility in formulation.

This information summarises the regulatory fit of PUREWHITE™ components; the final qualification and labelling depend on the customer's specific formulation and use.



# Quality, Safety and Origin



## Made in the EU

Manufactured under customer-centric **quality systems** and continuous improvement. Components approved by European and international authorities.



## Clean and Safe

**Free from preservatives** and **nanoparticles**. Edible ingredient, multi-tested, with **no intake limit** in the indicated context.

The excellence in quality and safety of PUREWHITE™ is supported by rigorous production controls and international certifications, guaranteeing maximum confidence for the most demanding food manufacturers.

# Presentation and Logistics



## Standard Format

**15 kg bags** specially designed for industrial use, ensuring easy handling and optimal storage.

We also offer **other formats upon consultation** to adapt to the specific production needs of each client, from smaller formats for trials to bulk presentations for large volumes.

Our logistics system ensures punctual deliveries and complete traceability from production to final destination.

# Implementation Recommendations

Our technical team has developed an optimised protocol to ensure maximum performance of PUREWHITE™ in your applications:

01

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## Define Function and Matrix

Identify the main function (whitening, stabilisation, firmness, calcium) and the specific matrix (confectionery, dairy, meat, beverage)

02

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## Optimise Dispersion

Pre-emulsify when the phase is aqueous to ensure uniform coverage and gloss in the final product

03

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## Adjust Dosage

Start with low ranges and adjust progressively according to desired whiteness objective and refractive index

04

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## Sensory Validation

Confirm gloss, crispness and colour stability under real production and storage conditions

05

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## Legal Review

Verify labelling and dispensability according to Article 20 of Reg. 1169/2011 by category and country of destination

# B2B Commercial Messages

## "Premium Whiteness without TiO<sub>2</sub>"

Brilliant finish, crisp texture, and clean label for products that stand out in the market

## "100% Mineral, 0% Nanoparticles"

Full regulatory confidence and exceptional industrial performance for demanding manufacturers

## "One Solution, Multiple Functions"

Colour, firmness, stability, and nutritional support in a single versatile ingredient

[Request Technical Information](#)

[Schedule a Demonstration](#)

PUREWHITE™ represents the evolution towards cleaner, safer, and more effective ingredients, positioning your brand at the forefront of responsible food innovation.