TOROWHITE ING 04

Advanced Food-Grade Anhydrite II for Modern Chewing Gum Base — Summary of Advantages

ING 04 is a highly purified, **natural food-grade Anhydrite II ($CaSO_4$)**, produced by controlled thermal conversion of exceptionally pure natural gypsum. It is engineered as a next-generation mineral filler for chewing gum base — not merely a talc substitute. In independent tier-1 industrial trials it has been validated as a **1:1 replacement for talc**, while delivering superior whiteness, acid stability and clean-label credentials.

Property	ING 04
Mineral	Natural Anhydrite II ($CaSO_4$)
Regulatory status	E516 — food-grade, uncontested
Whiteness	L* > 97 (super white)
Purity	> 99% $CaSO_4$
Particle size	D50 ≈ 4 µm; neutral taste & odour
Acid stability	Excellent — no CO_2 release
Talc replacement	1:1 validated at a tier-1 producer
Certifications	FSSC 22000, Halal, Kosher

One ingredient that replaces several

ING 04 does the work that previously required multiple, format-specific mineral grades:

- **Direct 1:1 talc swap** — replaces the incumbent filler with no major reformulation, mixing or equipment changes.
- **One spec across every gum format** — the same particle engineering covers the full 35–60% filler-loading range for bubble, sugar-free, mint, functional and nicotine gum. Manufacturers qualify one filler specification once, instead of managing several grades per SKU.
- **Succeeds where alternatives are limited** — unlike calcium carbonate, ING 04 is chemically inert to citric, malic and tartaric acid, so a single mineral works in both neutral and acidic (fruit/sour) systems without a second filler.

Ahead of the regulatory shift to natural minerals

Between July 2024 and mid-2026, **four independent regulators acted on talc** — the WHO's IARC (reclassified talc as "probably carcinogenic", Group 2A), the EU's ECHA (proposed Category 1B carcinogen), the US FDA (first-ever expert panel, favouring phase-out where alternatives exist) and EFSA, which is now re-evaluating **E553b — the exact food-additive approval that permits talc in chewing gum**. A major global talc producer (Imerys) has already withdrawn food-grade talc in the US and Canada.

The direction of travel — for regulators and consumers alike — is decisively toward **natural, cleaner mineral systems**. As a naturally occurring mineral with an uncontested E516 status, ING 04 meets that requirement directly, without an asterisk. Qualifying it now is a forward-positioning, risk-management move: the formulation is de-risked ahead of the 2026 EFSA/EC legislative cycle and the supply chain is diversified away from a contracting talc base.

Superior, consistent performance

- **Exceptional whiteness** — L* > 97 gives a brighter, cleaner base with excellent colour consistency; most valuable in mint, white, sugar-free and functional gums.
- **Acid stability** — no CO_2 release means stable flavour, texture and shelf-life in sour and fruit formats.
- **High purity & neutral profile** — > 99% purity, neutral taste and odour, low abrasiveness, and a controlled fine particle size (D50 ≈ 4 µm) for uniform dispersion without grittiness.

Commercially proven and future-ready

ING 04 has been successfully run in commercial gum-base production at **one of the world's leading tier-1 producers**, confirming stable incorporation, consistent processing, excellent dispersion and reliable long-term stability — clearing the rigorous rheological, texture, stability and acid-stability criteria such qualifications demand. This significantly reduces implementation risk. Its purity and neutral profile also open roles beyond confectionery, in functional and pharmaceutical (nicotine, caffeine, vitamin, controlled-release) gums.

Clean-label and sustainable

A naturally occurring mineral with long-term availability and **no synthetic polymer content**, ING 04 supports cleaner ingredient lists and the industry's environmental goals — in a gum-base market growing about 5.4% a year toward USD 1.78 billion by 2032, led by exactly the functional, sugar-free and premium segments where clean-label and colour consistency carry the most purchasing weight.

Bottom line: ING 04 turns the mineral filler from a passive extender into an active performance ingredient — one natural, food-grade mineral that replaces talc 1:1, performs across every gum format, and positions manufacturers on the right side of a tightening regulatory and clean-label landscape

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