



TOROWHITE

ENGINEERED FUNCTIONAL ADDITIVES

PRODUCT DATA SHEET

ING 04

FOOD APPLICATIONS

ING 04, derived from natural calcium sulfate, offers the food industry unique and carefully selected ingredient that fulfills multiple important functions. Its application as an anti-caking agent, dough strengthener, stabilizer, nutritional supplement, yeast improver, and supplemental calcium in commercial baking makes it a valuable component in a wide range of food products.

HIGHLIGHTS

- High purity > 98% CaSO_4
- Unique raw material quality
- 100% natural product
- Resistance to weak acids
- Resistance to high temperatures
- Easy to process due to low Mohs hardness
- Excellent organoleptic properties

ING 04 is produced from natural calcium sulfate that is unique and selected especially for the food industry. It is derived from carefully chosen natural calcium sulfate, meticulously tailored for the specific requirements of the food industry. Its wide-ranging benefits make it a valuable addition to commercial baking processes.

Typical Chemical Analysis

Chemical Name	Calcium Sulfate (Anhydrite)
Molecular Formula	CaSO_4
CAS Number	7778-18-9



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TECHNICAL DATA

Physical properties

Tap Density (g/cm ³) ⁽¹⁾	0.9
Pycnometer Density (g/cm ³) ⁽²⁾	2.8 - 3.0
Mohs Hardness ⁽³⁾	2.0 - 3.0
Refractive Index ⁽³⁾	1.57-1.60
Whiteness (CIE L value) ⁽⁴⁾	L* > 96
Medium Particle Size D50 (microns) ⁽⁵⁾	3.80 - 4.70
Maximum Particle Size D98 (microns)	20.00 - 22.00
Oil Absorption Rate (g/100g) ⁽⁶⁾	33
BET Surface Area (m ² /g) ⁽⁷⁾	2.5
pH (10% slurry)	10.0 – 11.0
Purity	> 98% CaSO ₄
Crystal Shape	orthorhombic
Water Content	max. 1.0%

- (1) According to the standard ASTM B527
(2) Quantachrome Ultrapyc-1200e
(3) Literature data (R. Rothon, Fillers for Polymer Applications, Springer 2017)
(4) Konica Minolta CM-600d
(5) Malvern Mastersizer 3000E
(6) ASTM D1483
(7) ASAP 2020 (Micromeritics)

Food Grade raw material with following results for ING 04

Assay	>99%
Calcium Test	Conform
Sulphate Test	Conform
Solubility in Water	Slightly Soluble
Solubility in Ethanol	Insoluble
Fluoride (Anion IC)	<30.0 mg/kg
Selenium (F5202)	<10.0 mg/kg
Arsenic (F5202)	< 1.0 mg/kg
Lead (F5202)	< 2.0 mg/kg
Mercury (F5202)	< 1.0 mg/kg

This information is given to the best of our knowledge. Although all statements and results shown in this document are believed to be accurate and reliable, they are presented for guidance and as information only. Because of the multitude of formulations and processing conditions, the above-mentioned statements must be adapted by user to the requirements of each application.