



TOROWHITE

ENGINEERED FUNCTIONAL ADDITIVES

PRODUCT DATA SHEET

FOG 20

FOOD GRADE

TERRA ALBA

CALCIUM SULFATE **DIHYDRATE**

HIGHLIGHTS

- 100% natural origin
- Finely ground and tasteless white powder
- Produced from rarely found food & pharma grade natural gypsum
- High purity >99% CaSO₄
- Excellent whiteness
- Odourless
- Qualifies as european union food additive number E516
- Potential to reduce salt
- Positive impact on texture
- Can increase shelf-life

TORO WHITE FOG 20 is a finely ground, odorless and tasteless white powder, with excellent brightness, produced from rarely found Food & Pharma Grade natural gypsum. Calcium Sulfate Dihydrate, contains about 20% water of crystallization. Produced in Spain from pure natural gypsum.

APPLICATIONS

The use of Calcium Sulfate Dihydrate is widely spread in the food industry across a large number of food processing applications and represents a valuable ingredient with a positive impact not only on taste and texture but also on health.

- Bakery and pastry
- Starter cultures, fermentation starter and yeast foods
- Brewing beer
- Sherry wine production
- Calcium supplement
- In canned peas, tomatoes, potatoes, green sweet peppers, red sweet peppers, lima beans and carrots
- Fish, meat and prepared foods
- Cereals, pasta, flours, corn meals
- Confections, frostings, gelatins, soft-serve ice-cream and other frozen desserts, artificially sweetened jellies
- Vegan and vegetarian products
- Cheese and tofu production

More precisely, the ingredient is used as:

- Color and coloring adjunct
- Dough strengthener
- Drying, anticaking and firming agent
- Flour treating and pH control agent
- Formulation aid
- Leavening agent
- Acidity regulator
- Processing aid
- Stabilizer and thickener
- Synergist
- Texturizer



TOROWHITE

ENGINEERED FUNCTIONAL ADDITIVES

PRODUCT DATA SHEET

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⁾	1.52 - 1.60
Whiteness (CIE L value) ⁽⁴⁾	L* > 95
Medium particle size D50 (microns) ⁽⁵⁾	18 - 22
Medium particle size D98 (microns)	40 - 45
Oil Absorption-DOP (g/100g) ⁽⁶⁾	26.76
BET Surface Area (m ² /g) ⁽⁷⁾	8.76
pH (10% slurry)	7.0 – 8.0
Purity	> 99% CaSO ₄ (in dry product)
Crystal shape	monoclinic
Water content	20% (TGA method)

- (1) According to the standard ASTM B527
(2) Quantachrome Ultrapyc-1200e
(3) Literature data (R. Rother, Fillers for Polymer Applications, Springer 2017)
(4) Datacolor ELREPHO
(5) Malvern Mastersizer 3000
(6) ASTM D1483
(7) Quantachrome NOVAtouch

Typical Chemical Analysis

Chemical name	Calcium Sulfate Dihydrate
Molecular formula	CaSO ₄ · 2H ₂ O
CAS number	10101-41-4

Food & Pharma Grade raw material with following results for Ti-ExR 04

Assay	>99%
Flame Test	Red Flame Calcium present
Sulphate Test	Present
Solubility in Water	Slightly soluble
Solubility in Ethanol	Insoluble
Fluoride (Anion IC)	< 30 mg/kg
Selenium (F5202)	< 10 mg/kg
Arsenic (F5202)	<1.0 mg/kg
Lead (F5202)	<1.0 mg/kg
Mercury (F5202)	<0.5 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 application.