USG TERRA ALBA NO. 1

CALCIUM SULFATE DIHYDRATE FILLER

DESCRIPTION

When processed at room temperature, USG Terra Alba No.1 Calcium Sulfate Dihydrate Filler is a flame-retarding filler. It offers low abrasion to processing equipment and is available in 50 lb. bags or 2,000 semi-bulk from USG's Southard, Oklahoma plant.

USG Terra Alba No. 1 Calcium Sulfate Dihydrate Filler is made by fine grinding and air separating a select, high purity white gypsum containing approximately 20% water of crystallization. Depending upon vapor pressure, relative humidity, loading levels, etc., this water of crystallization, or combined water as it is often called, starts being released as the USG Terra Alba No. 1 Calcium Sulfate Dihydrate Filler is heated above 50 °C. At approximately 180 °C, 75% of the combined water has been released. Water is not totally removed until temperatures exceed 400 °C.

TYPICAL PHYSICAL PROPERTIES

Specific Gravity	2.3
pH—10% Slurry	7.3
Mohs Hardness ⁽¹⁾	2-3
Refractive Index ⁽¹⁾	1.5
Oil Absorption ⁽²⁾	23-25
Loose Bulk Density (lbs./ft.³)	42
Packed Bulk Density (lbs./ft.³)	62
L, a, b values ⁽³⁾	88.0, 0.8, 4.3
Median Particle Size (microns)(4)	13.0
Top Particle Size (microns)	150
Typical Chemical Analysis	%
CaSO ₄ • 2H ₂ O	98.0
CaCO ₃ • MgCO ₃	0.5
CaCO ₃	0.3
CaSO ₄	0.7
Aggregate	0.3
Free Moisture at 45 °C (113 °F)(5)	0.1
Combined Moisture	19.0

⁽¹⁾ Literature value



 $^{^{(2)}}$ ASTM D1483, Gardner Coleman method, g oil/100 g filler

⁽³⁾ HunterLab Colorflex EZ Colorimeter L,a,b values

⁽⁴⁾ Microtrac S3500 FRA

⁽⁵⁾ Computrac Moisture Analyzer Max 2,000, 4,000, 5,000

TYPICAL PARTICLE SIZE DATA

Sieve Analysis ⁽¹⁾	%
Through 50 mesh (300 microns)	100.0
Through 100 mesh (150 microns)	99.9 – 100.0
Through 200 mesh (75 microns)	99.8 - 100.0
Through 325 mesh (44 microns)	97.0 - 100.0
Microtrac Analysis ⁽²⁾ % Smaller Than	%
22 microns	50.0
11 microns	23.0
5.5 microns	9.0
5.5 microns	9.0

⁽¹⁾ Alpine Jet Air Sieve

STORAGE AND USE

When properly used, USG Terra Alba No. 1 Calcium Sulfate Dihydrate Filler is easy to work with. Keep indoors at temperatures between 65 $^{\circ}$ F - 75 $^{\circ}$ F (18 $^{\circ}$ C - 24 $^{\circ}$ C) and 45% - 55% RH. Do not stack more than two pallets high. Keep from drafts. Rotate stock. USG Terra Alba No. 1 Calcium Sulfate Dihydrate Filler should be used within one year of the manufacturing date located on the package. Always follow handling and use directions and safety warnings on the package. USG Terra Alba No. 1 Calcium Sulfate Dihydrate Filler is not approved for use in food and pharmaceutical applications.

PRODUCT INFORMATION

ee usg.com for the most up-to-date product information.

Dust from mixing may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Use only in a wellventilated area, wear a NIOSH/MSHA-approved respirator. Wear eye protection. If eye contact occurs, flush thoroughly with water for 15 minutes. If on skin: Wash with plenty of water. If swallowed or irritation persists, call a physician. For more information call Product Safety: 800 507-8899 or see the SDS at usg.com **KEEP OUT OF REACH OF CHILDREN.**

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Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read applicable SDSs and literature before specification and installation.

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⁽²⁾ Microtrac S3500 FRA