



TRADE ROCK

For Trading and Mining

2025

PRODUCTS CATALOGUE



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TRADE ROCK

Trade Rock is a leading mining and trading company specializing in the extraction, processing, and export of high-quality minerals, including rock phosphate and other essential minerals. With a commitment to excellence, sustainability, and customer satisfaction, Trade Rock has established a strong reputation in the global market. In addition to minerals, the company also supplies fertilizing products to support agricultural development and food security worldwide.

Operational Excellence

Our operations are powered by advanced technology and a highly skilled workforce. We ensure strict adherence to industry standards, maintaining efficient supply chains and on-time delivery.



Core Values

- * Integrity: Upholding honesty and transparency in all business dealings.
- * Excellence: Committing to the highest quality in our products and services.
- * Sustainability: Prioritizing environmentally responsible mining practices.
- * Customer Satisfaction: Building long-term relationships through exceptional service.

Quality Assurance

We maintain rigorous quality control processes to ensure the purity and performance of our minerals. Our laboratories are equipped with advanced testing facilities to guarantee product quality.



01

Mining Products

➤ 01

Phosphate
Rock

➤ 03

Black Sand

➤ 02

Silica Sand

➤ 04

Aggergate Quartz



➤ **05**
Kaolin

➤ **06**
Dolomite

➤ **07**
Filtration
Sand

➤ **08**
Limestone

➤ **09**
Talc

01 Rock Phosphate 24%MIN

Technical Specification Report for Rock Phosphate .

TRADE ROCK
Phosphate Rock Specifications
From grade 24% to 32%



CHEMICAL ANALYSIS FOR PHOSPHATE ROCK

Element	Result %
P ₂ O ₅	24.00, 25.00, 26.00, 27.00, 28.00, 29.00, 30.00, 31.00, 32.00
CAO	47.00 - 48.00
MGO	0.30 - 0.40
Fe ₂ O ₃	1.80 - 2.50
Al ₂ O ₃	0.35 - 0.50
K ₂ O	0.02 - 0.06
NA ₂ O	0.30 - 0.60
SiO ₂	6.00 - 8.00
SO ₃	1.50 - 2.00
F	3.00 - 3.10
CL	0.05 - 0.10
L.O.I	6.50 - 7.50
CO ₂	4.50 - 5.20
Org.Matter	0.15 - 0.25
Caco ₃	10.20 - 11.80
Moisture	4 Max

Technical Specification Report For Rock Phosphate

Trade Rock Phosphate Rock Specifications From grade 24% to 32%:



PHYSICAL PROPERTIES

Size	Result %
+ 4.50 MM	3.00
-4.50 MM + 0.16 MM	68.00-72.00
-0.16 MM + 0.08 MM	14.00 - 16.00
-0.08 MM + 0.05 MM	10.00 - 12.00
- 0.05 MM	2.00- 4.00

02

Silica Sand



| Silica Sand

● ○ Silica Sand Description:

Silica Sand, also known as industrial sand or quartz sand, is a high-purity sand composed primarily of silicon dioxide (SiO_2) in the form of quartz. It is a hard, chemically inert material with a consistent grain shape and size, making it highly valuable in a wide range of industrial applications.

● ○ Key Characteristics:

Composition: $\geq 95\% \text{SiO}_2$ (can exceed 99% for high-purity grades)

Color: White to light tan

Grain Shape: Rounded or angular, depending on source and processing

Grain Size: Varies by application (typically 0.1–2 mm)

● ○ Common Uses:

- **Glass Manufacturing:** Essential raw material for flat glass, container glass, and fiberglass
- **Foundry Sand:** Used in metal casting molds
- **Construction:** Ingredient in concrete, mortar, and building materials
- **Filtration:** Used in water and wastewater filtration systems
- **Hydraulic Fracturing (Fracking):** Proppant to keep fractures open in oil and gas wells
- **Industrial Abrasives:** For sandblasting and surface finishing
- **Ceramics and Refractories:** As a filler or structural material

Silica Sand

Compound Formula

Concentration (wt%) (1) 2400/24 (A)

Chemical Analysis

• Na ₂ O	0.152
• MgO	0.090
• Al ₂ O ₃	0.924
• SiO ₂	97.946
• P ₂ O ₅	0.089
• SO ₃	0.029
• K ₂ O	0.207
• CaO	0.141
• TiO ₂	0.168
• Fe ₂ O ₃	0.0134
• CO ₃ O ₄	0.021
• SrO	0.003
• ZrO ₂	0.011
• Cl	0,034

• SiO ₂	97.9
• Pb	9.20 ppb
• P ₂ O ₅	153 ppb
• Na ₂ O	0.1103
• MgO	0.0135
• Cao	0.0752
• K ₂ O	0.0101
• Fe ₂ O ₃	0.0134
• Al ₂ O ₃	0.0941
• SO ₃	0.0076
• Cl-	0.0034
• MnO ₂	17 ppb
• L.O.I	0.1603



Silica Sand

Constituent	Results %	Ref. Test Method
<ul style="list-style-type: none"> Moisture GO. I SiO₂ 	<ul style="list-style-type: none"> 0.02 0.17 99.59 	BS 2975:2004
<ul style="list-style-type: none"> Fe₂O₃ Al₂O₃ CaO MgO Cr₂O₃ TiO₂ 	<ul style="list-style-type: none"> 0.0134 0.142 0.021 0.002 1.170 PPM 0.015 	Atomic Absorption Spectrometry
Sieve Distribution (mm):		
<ul style="list-style-type: none"> +0.850 +0.600 + 0.400 + 0.212 +0.150 + 0.75 -0.75 	<ul style="list-style-type: none"> 0.06 0.76 32.15 64.02 2.74 0.23 0.04 	BS 2975:1988



03 Black Sand

Most Important Black Sand Products

01 Ilmenite (FeTiO_3)

Ilmenite consists of iron oxide and titanium and is considered as the main source of titanium dioxide, titanium sponge, and titanium ingots, used in important strategic industries such as manufacture of aircraft structures, missiles, submarines, space vehicles.



← 01 Analysis 02 →

S	Element	Results	Unit
1	TiO_2	46.4	%
2	Fe_2O_3	50.8	%
3	SiO_2	1.31	%
4	MnO	1.21	%
5	Cr_2O_3	0.27	%
6	V_2O_5	0.18	%
7	CaO	0.40	%

S	Element	Results	Unit
1	TiO_2	44.9	%
2	Fe_2O_3	48.8	%
3	SiO_2	2.62	%
4	MnO	1.41	%
5	Cr_2O_3	0.39	%
6	V_2O_5	0.16	%
7	CaO	0.83	%

Most Important
Black Sand Products

02 Rutile (TiO₂)

Rutile is considered as the main source in manufacturing of titanium dioxide and welding wires.



Analysis

01				02				03			
S	Element	Results	Unit	S	Element	Results	Unit	S	Element	Results	Unit
1	TiO ₂	93.6	%	1	TiO ₂	83.2	%	1	TiO ₂	77.2	%
2	Fe ₂ O ₃	0.87	%	2	Fe ₂ O ₃	0.58	%	2	Fe ₂ O ₃	0.62	%
3	ZrO ₂	0.66	%	3	ZrO ₂	7.37	%	3	ZrO ₂	10.3	%
4	SiO ₂	1.94	%	4	SiO ₂	5.63	%	4	SiO ₂	8.72	%

Most Important
Black Sand Products

03 Leucoxene

Leucoxene consists of iron oxide and titanium and is considered as the main source of titanium dioxide, titanium sponge and titanium ingots, used in important strategic industries such as manufacture of aircraft structures, missiles, submarines space vehicles



Analysis



S	Element	Results	Unit
1	TiO ₂	62.2	%
2	Fe ₂ O ₃	1.55	%
3	SiO ₂	15.0	%
4	CaO	4.30	%

S	Element	Results	Unit
1	TiO ₂	55.8	%
2	Fe ₂ O ₃	7.82	%
3	SiO ₂	14.3	%
4	CaO	5.50	%

S	Element	Results	Unit
1	TiO ₂	44.9	%
2	Fe ₂ O ₃	3.16	%
3	SiO ₂	22.1	%
4	CaO	7.5	%

Most Important
Black Sand Products

04 Magnetite (Fe₃O₄)

Magnetite is one of the oxides of iron, considered as a versatile mineral with in the production of high-quality cast iron, sponge iron and soil desalination, environmental protection, electronics, construction and involved in manufacturing huge concrete boulders to protect beaches.



Analysis

01 →

S	Element	Results	Unit
1	TiO ₂	17.9	%
2	Fe ₂ O ₃	72.9	%
3	SiO ₂	2.43	%

Most Important
Black Sand Products

05 Garnet (FeAlSi3O9)

Garnet is used in manufacturing grinding stones, surface polishing, sandblasting, sandpaper, and is also used in the water jet cutting machine for marble and granite, used as a natural filtration media in water treatment plants and in industrial wastewater treatment and desalination plants, and used in Anti-Skid Surfaces & Road Construction



01

Analysis

02

Screen size (µm)	Weight (gm)	Percentage (%)	Cumulative wt. Retained %	Cumulative wt. Passing %	Screen size (µm)	Weight (gm)	Percentage (%)	Cumulative wt. Retained %	Cumulative wt. Passing %
425.0	0.4	0.3	0.3	99.7	425.0	0.1	0.0	0.0	100.0
300.0	9.4	7.0	7.3	92.7	300.0	0.2	0.1	0.2	99.8
250.0	21.0	15.7	23.0	77.0	250.0	0.6	0.3	0.5	99.5
212.0	31.2	23.3	46.3	53.7	212.0	1.0	0.5	1.0	99.0
180.0	41.4	30.9	77.2	22.8	180.0	28.0	15.3	16.3	83.7
150.0	17.2	12.8	90.1	9.9	150.0	109.0	59.5	75.8	24.2
-150.0	13.3	9.9	100.0	0.0	-150.0	44.4	25	100	0.0
Total	133.9	100.0			Total	183.3	100.0		

Most Important
Black Sand Products

06 Zircon Sand ($ZrSiO_4$)

Zircon is used in manufacturing ceramics, glass, furnace lining, dental filling, paint dryers, paper industry, sanitary ware, refractory, foundry and nuclear industry.



Analysis

01				02				03			
S	Element	Results	Unit	S	Element	Results	Unit	S	Element	Results	Unit
1	TiO ₂	0.24	%	1	TiO ₂	0.33	%	1	TiO ₂	0.71	%
2	Fe ₂ O ₃	0.14	%	2	Fe ₂ O ₃	0.11	%	2	Fe ₂ O ₃	0.17	%
3	ZrO ₂ +HfO ₂	65.38	%	3	ZrO ₂ +HfO ₂	65.07	%	3	ZrO ₂ +HfO ₂	64.49	%
4	SiO ₂	32.2	%	4	SiO ₂	32.7	%	4	SiO ₂	32.4	%
5	MgO	0.52	%	5	MgO	0.63	%	5	MgO	0.40	%
6	U	311	ppm	6	U	323	ppm	6	U	298	ppm
7	Th	396	ppm	7	Th	158	ppm	7	Th	324	ppm

Most Important
Black Sand Products

07 Ultra fine Zircon ($ZrSiO_4$)

Ultra-fine zircon ($ZrSiO_4$) is a highly versatile material essential in advanced ceramics, refractories, electronics, coatings, biomedical, and aerospace industries. Its high durability, chemical resistance, and heat stability make it a critical component in cutting-edge technologies.



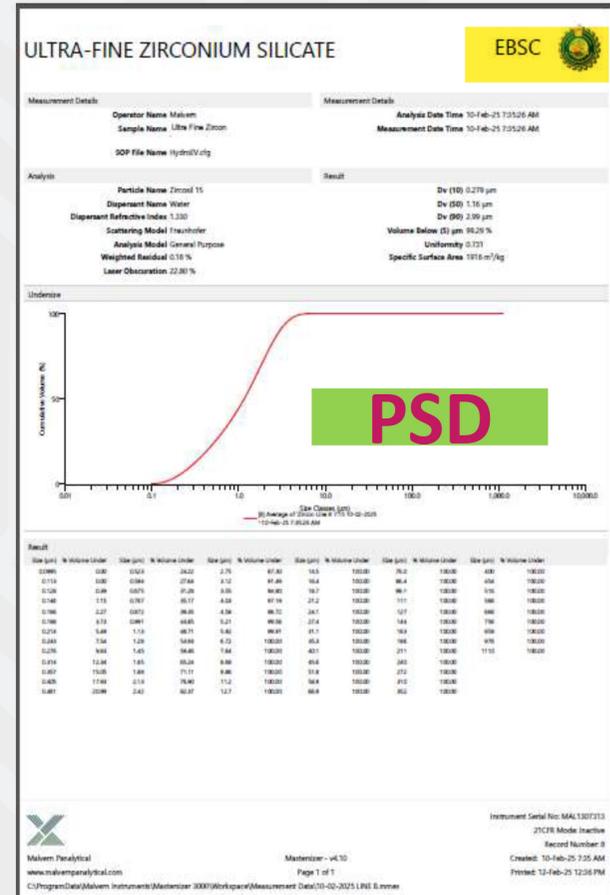
Analysis

01

02

S	Element	Results	Unit
1	TiO ₂	0.18	%
2	Fe ₂ O ₃	0.11	%
3	ZrO ₂ +HfO ₂	66.01	%
4	SiO ₂	32.4	%
5	MgO	0.08	%
6	U	236	ppm
7	Th	215	ppm

S	Element	Results	Unit
1	TiO ₂	0.32	%
2	Fe ₂ O ₃	0.12	%
3	ZrO ₂ +HfO ₂	65.91	%
4	SiO ₂	32.3	%
5	MgO	0.07	%
6	U	262	ppm
7	Th	272	ppm



Most Important Black Sand Products

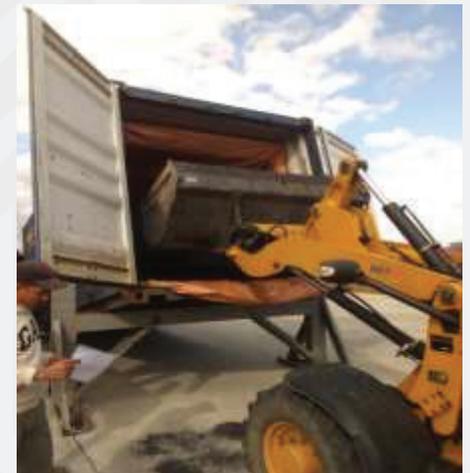
● Packaging

● We offer various packaging options for our products:

- ○ **Ilmenite:** Available in bulk within a container, in large jumbo bags (27 tons), or in jumbo bags of 1.5 tons, or in bulk..
- ○ **Rutile:** Packaged in 1.5-ton jumbo bags.
- ○ **Leucoxene:** Packaged in 1.5-ton jumbo bags.
- ○ **Magnetite:** Available in bulk within a container, in large jumbo bags (27 tons), or in bulk.
- ○ **Garnet:** Packaged in 1.5-ton jumbo bags or 25 kg packs
- ○ **Zircon Sand:** Available in 1.5-ton jumbo bags
- ○ **Ultra-Fine Zircon:** Packaged in 0.75-ton jumbo bags or 25 kg packs

● Delivery

We offer various delivery options for our products: EXW, FCA, CFR or CIF



04 Quartz Aggergate

Technical data sheet

Quartz Aggregate (700-1200) Micron

ICP ANALYSIS

Component	Result
Al ₂ O ₃	0.0282
Fe ₂ O ₃	0.004
CaO	0.0067
Na ₂ O	0.0051
K ₂ O	0.0043
MgO	0.0028
MnO (PPM)	0.9
Cr ₂ O ₃ (PPM)	NA
Li ₂ O (PPM)	1.3
CuO (PPM)	0.4
NiO (PPM)	0.1
TiO ₂ (PPM)	7.8
SiO ₂	99.70

Average grain size distribution

Size (µm)	Average
< 700 microns	8%
700 - 1200 microns	88%
> 1200 microns	4%

Color Analysis

L, a , b result	Average
L	83 +
a	< 1
b	<4

Technical data sheet
Quartz Aggregate (100-300) Micron

ICP ANALYSIS

Component	Result
Al ₂ O ₃	0.0344
Fe ₂ O ₃	0.0043
CaO	0.0925
Na ₂ O	0.0063
K ₂ O	0.0051
MgO	0.0033
MnO (PPM)	1.3
Cr ₂ O ₃ (PPM)	0.9
Li ₂ O (PPM)	4.5
CuO (PPM)	0.8
NiO (PPM)	0.1
TlO ₂ (PPM)	13.7
SiO ₂	99.7

Average grain size distribution

Size (µm)	Average
< 100 microns	8%
100 - 300 microns	88%
> 300 microns	4%

Color Analysis

L, a , b result	Average
L	87 +
a	< 1
b	>4

Technical data sheet

Quartz Aggregate (45) Micron

ICP ANALYSIS

Component	Result
Al ₂ O ₃	0.1853
Fe ₂ O ₃	0.0313
CaO	0.003
Na ₂ O	0.0189
K ₂ O	0.0183
MgO	0.0136
MnO (PPM)	11.1
Cr ₂ O ₃ (PPM)	NA
Li ₂ O (PPM)	40.9
CuO (PPM)	3.9
NiO (PPM)	7.4
TiO ₂ (PPM)	14.0
SiO ₂	99.5

Color Analysis

L, a , b result	Average
L	93.5 +
a	< 1
b	<1.6

Technical data sheet
Quartz Aggregate (300-700) Micron

ICP ANALYSIS	
Component	Result
Al ₂ O ₃	0.0436
Fe ₂ O ₃	0.0059
CaO	0.0146
Na ₂ O	0.0159
K ₂ O	0.0077
MgO	0.0058
MnO (PPM)	1.5
Cr ₂ O ₃ (PPM)	NA
Li ₂ O (PPM)	5.8
CuO (PPM)	0.6
NiO (PPM)	0.4
TiO ₂ (PPM)	14.0
SiO ₂	99.7
Average grain size distribution	
Size (µm)	Average
< 700 microns	8%
700 - 1200 microns	88%
> 1200 microns	4%
Color Analysis	
L, a , b result	Average
L	85 +
a	< 1
b	>4

05 Kaolin

Kaolin $Al_2 O_3 2SiO_2 2H_2O$

Kaolin, also known as china clay, is a versatile soft white clay prized for its fine texture and bright color, It forms the foundation of china and porcelain, and its applications extend far beyond delicate ceramics.

Kaolin is widely used in the manufacturing of paper, rubber, and paint, thanks to its properties as an absorbent, bulking agent, and modifier.

Standard export Chemical analysis

Element	Result Range%	Element	Result Range%	Element	Result Range%
Na O	0.0454	NiO	0.0070	S-BLEND	0.0500
MgO	0.0524	CuO	0.0051	pH	6.00 – 8.00
Al ₂ O	30- 34	ZnO	0.0103	Whiteness	81.82
SiO ₃	41.40	Ga ₂ O ₂	0.0070	Density	1.502
P ₂ O ₅	0.105	SrO	0.0073	Liquefaction	0.3
SO ₃	0.0273	Y ₂ O	0.0145	Viscosity by Leman, sec (d=4.0 mm)	Not more than 35
K O	0.0291	ZrO ₂	0.1548	Thixotropy, °Γ (degrees of Gallenkamp)	From 0 to 20
CaO	0.1618	Nb ₂ O ₅	0.0225	Casting rate (after 30 min),MM	no less 5,5
TiO ₂	2.843	PbO	0.0028	Loss on ignition, %	no less 13,0
Cr ₂ O ₃	0.0232	ThO ₂	0.0034		
Fe ₂ O ₃	1.180	LOI-CHO	16.9069		

06

Dolomite

$\text{CaMg}(\text{CO}_3)_2$

I Dolomite $\text{CaMg}(\text{CO}_3)_2$

Dolomite: A Versatile Mineral and Rock

Dolomite is a fascinating material that exists in two forms: a mineral and a rock. As a mineral, dolomite is an anhydrous carbonate composed of calcium and magnesium carbonate, ideally in a 1:1 ratio ($\text{CaMg}(\text{CO}_3)_2$)

This mineral is a key component of the sedimentary rock also called dolomite, which is primarily composed of dolomite crystals.

Geologists sometimes use the term “dolostone” to distinguish the rock from the individual mineral itself

Specifications

I $\text{CaMg}(\text{CO}_3)_2$

Product identification

Element	Result Range%
SiO_2	0.01
Al_2O_3	0.15
MgO	21.2
CaO	<30.4
Fe_2O_3	0.07
TiO_2	0.01



07 Filtration Sand



Filtration Sand (SiO₂)

TRADE ROCK is a leading producer of premium-grade silica sand in Egypt, This high-purity silica, found in its crystalline form, caters specifically to the demands of the glass industry.

TRADE ROCK employs a highly qualified team dedicated to maintaining rigorous quality control standards for their silica sand. This commitment ensures consistent quality across various sieve sizes, all tailored to meet your specific needs.

TRADE ROCK produce filter sand and gravel with deferent grain size analysis as (0.0-0.5mm), (0.5-1mm), (0.6- 1.25mm) and (1-2mm).

08 Limestone



Limestone (CaCO_3)

Description

- Naturally occurring mineral (limestone, chalk, marble).
- Chemical formula: CaCO_3 – white, odorless powder/crystals.

Types

- **GCC (Ground):** Crushed limestone, coarse (1–100 μm).
- **PCC (Precipitated):** Synthetic, ultra-fine (0.5–3 μm).
- **Nano: 20–100nm**, high-performance uses.

Key Uses

- **Construction:** Cement, asphalt filler.
- **Paper:** Coating & brightening agent.
- **Plastics/Paints:** Reinforcement, opacity.
- **Food/Pharma:** Antacids (Tums), calcium supplements (E170).
- **Agriculture:** Soil pH balancer, animal feed.

Properties:

- **Insoluble in water**, dissolves in acids.
- **Alkaline** (pH ~9-10).
- **Decomposes** at 825°C $\rightarrow \text{CaO} + \text{CO}_2$.



Limestone (CaCO₃)

Safety

- **Non-toxic** (FDA-approved for food).
- **Dust may irritate lungs** (wear mask).

Standards

- **Industrial (ASTM C602), Food (USP/FCC).**

Production

- **GCC:** Mined & ground.
- **PCC:** Chemically synthesized (lime + CO₂)

- Size Ranged 00.00 – 10.00 mm
- Size Ranged 10.00 – 40.00 mm

Chemical	Percentage %
CaCO ₃	99.5
MgO	0.01
SiO ₂	0.3
Fe ₂ O ₂	0.01
Al ₂ O ₃	0.01
Loss on ignition	43.89

Physical Properties

Color	white
Streak	white
Sparkle	Glass
Hardness	3-4
Specific Gravity	2.5 – 2.65 kg/cm
Cracking	in three directions
Water absorption	less than 1%
porosity	Low
Stress pressure	1800-2100 kg/cm ²

Product Identification

Chemical Name	Calcium Dihydrogen Phosphate
Chemical Formula	Ca(H ₂ PO ₄) ₂
Trade Name	Single Super Phosphate Granules
Use	Agriculture Fertilizer

09

Talc

$H_2Mg_3(SiO_3)_4$

I Talc $H_2Mg_3(SiO_3)_4$

Description

Natural magnesium silicate mineral ($Mg_3Si_4O_{10}(OH)_2$), Softest known mineral (Mohs hardness: 1), feels greasy.

White/gray powder, chemically inert & hydrophobic.

Types & Grades

- Industrial Talc (low purity): Plastics, ceramics, paints.
- Cosmetic Talc (high purity): Baby powder, makeup.
- Pharmaceutical Talc (ultra-pure): Tablet coating, medical use.

Key Applications

- **Plastics & Rubber:** Filler, improves heat resistance.
- **Cosmetics:** Absorbent in powders, eyeshadows.
- **Paper:** Enhances smoothness & brightness.
- **Pharma:** Tablet lubricant, anti-caking agent.
- **Ceramics:** Lowers firing temperature.
- **Paints & Coatings:** Improves texture.

Properties

- **Heat-resistant** (up to $\sim 900^\circ C$).
- **Water-repellent** (hydrophobic).
- **Low friction** (slippery texture).



TRADE ROCK

Talc Specifications:

Specifications:

Element			
• SiO ₂	60 – 62	60 – 61	53 – 58
• TiO ₂	< 0.01	< 0.01	< 0.01
• AL ₂ O ₃	0.30 – 0.50	0.50 – 1.00	1.00 – 2.00
• Fe ₂ O ₃	0.10 – 0.20	0.20 – 0.40	0.50 – 0.70
• MnO	0.01	0.01%	0.01
• MgO	31.0 – 32.5	30.0 – 31.0	28.0 – 30.0
• CaO	0.14 – 0.30	0.50 – 1.00	3.00 – 6.00
• Na O	< 0.01	< 0.01	< 0.01
• K O	< 0.01	< 0.01	< 0.01
• P O	0.01	0.02	0.04
• L.O.I	4.5 – 5.0	5.5 – 6.5	8.0 – 9.0

Standard Size:

Standard Size			
• Element	%	%	%
• Whiteness	90.00 min	86.00 min	83.00 min
• SP.gr.	0.55	0.55	0.55
• P.H	7.00	7.20	7.20



TRADE ROCK

FOR TRADING AND MINING
CUTTING EDGE MINING TECHNOLOGY



TRADE ROCK

FOR TRADING AND MINING
CUTTING EDGE MINING TECHNOLOGY



02 Fertilizer Products

01

Single Super
phosphate (SSP)

02

Di Ammonium
Phosphate (DAP)

03

Triple Super
phosphate (TSP)

04

UREA

05

Potassium
Sulfate



06

Ammonium
Nitrate

08

Nitric Acid

07

Liquid Ammonia

09

Calcium Ammonium
Nitrate

01

Single Super Phosphate



TRADE ROCK
FOR TRADING AND MINING
CUTTING EDGE MINING TECHNOLOGY

Fertilizer Products



Granulated Single Super phosphate 16%

Specifications

Product Identification

Chemical Name	Calcium Dihydrogen Phosphate
Chemical Formula	$\text{Ca}(\text{H}_2\text{PO}_4)_2$
Trade Name	Single Super Phosphate Granules
Use	Agriculture Fertilizer

Physical Properties

Appearance	Granulated solid	
Moisture	4.0% max.	
Grain size	+4.8 mm.	2% max.
	2-4.8 mm.	60% min.
	1-2 mm.	39% max.
	-1 mm.	1% max.
Hardness	2.8 kgf/Granule min.	

Chemical Properties

Water soluble as P_2O_5	$16 \pm 0.3\%$
Citrate soluble as P_2O_5	$18 \pm 0.3\%$
Total phosphorus as P_2O_5	$20 \pm 0.5\%$
Free acid as P_2O_5	4.0% max



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NB: All aspects and consequently results of analysis are on a dry basis

02

Di Ammonium Phosphate



Di Ammonium Phosphate (Granular) G- DAP

Specifications

Parameters	Limits
Total P ₂ O ₅	46% wt ±0.5
Water soluble P ₂ O ₅	41% wt ±0.5 (partially soluble)
Free acidity as P ₂ O ₅	18% Wt ±0.5
Moisture	1.0% max.
Hardness	3 Kg min
Particle size	(4.75 mm - 2mm) 90% min
	(2 mm - 1mm) 5% max
	<1 mm 5% max



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03 Triple Super Phosphate



Triple Super Phosphate (Granular) G-TSP

Specifications

- **Triple super phosphate** fertilizers highly concentrated phosphorus fertilizer with contents of 46% phosphorus pentoxide (P₂O₅).
- **Triple super phosphate TSP** It is appropriate for feeding all types of soils which have pH within the limits of weakly acidic to alkaline medium.
- **Triple Super Phosphate** is composed of inorganic nutrients that are used to restore soil components essential for farming Phosphate is one of the soil components that is vital to help promote root growth of all kinds of plants, so that the roots will be thicker, stronger and healthier.

Parameters	Limits
Total P ₂ O ₅	46% wt.±1 %
Water soluble P ₂ O ₅	41% wt.±1 % (partially soluble)
Free acidity as P ₂ O ₅	5 %Wt. max
Moisture	5% max.
Hardness	3 Kg min
Particle size	(4.75 mm -2mm) 90% min (2 mm-1mm)5% max <1 mm 5% max



04 Urea



Urea 46.4%

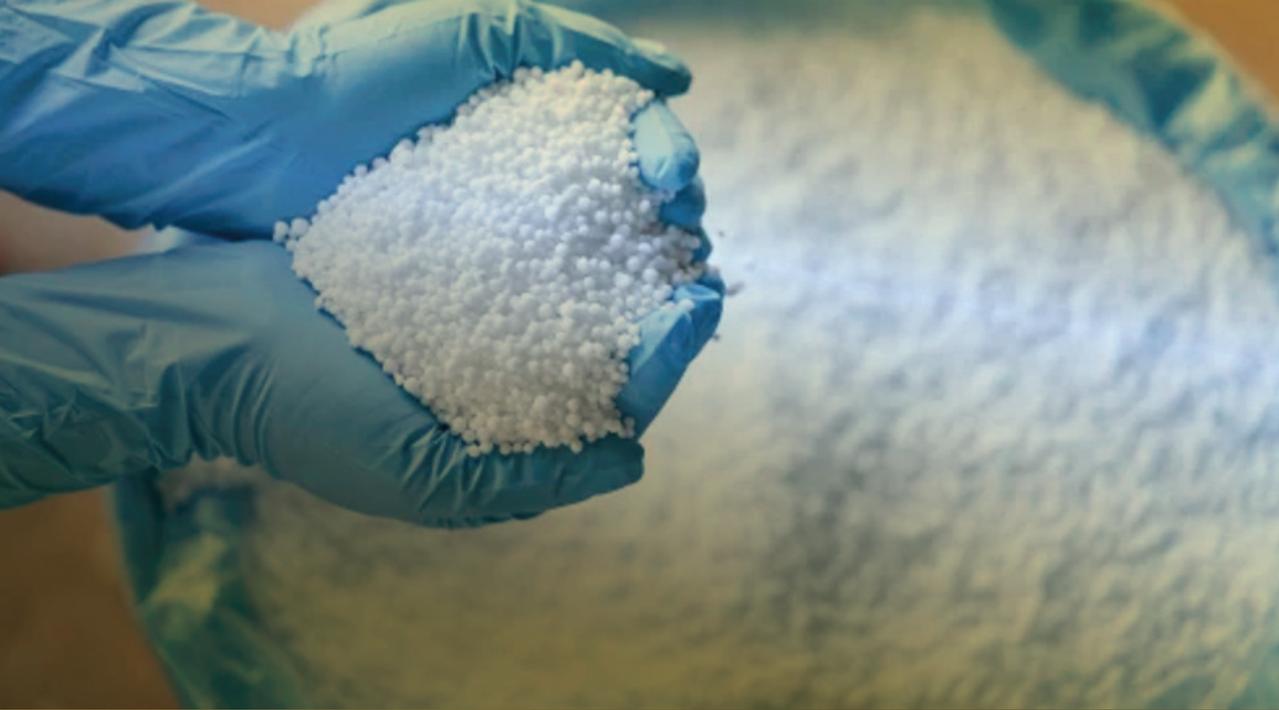
Specifications

01 Fertilizers

Item	Value
Physical state	Solid at 20c
Color	White
pH	8.4
Urea	99.2 % MIN
Total nitrogen	46.3 MIN
Biuret	0.8-1.0 %
Formaldehyde	0.4 %MAX
Moisture	0.4 %MAX
Free ammonia	30 ppm
Crushing Strength	4 - 5 Kgf
Bulk Density	760-780 Kg/M ³
Practical size Between 2.0-4.5 mm	90% MIN

02 Industrial

Item	Value
Physical state	Solid at 20c
Color	White
pH	8.4
Urea	99.2 % MIN
Total nitrogen	46.3 MIN
Biuret	1.0 MIN
Formaldehyde	0.4 %MAX
Moisture	0.4 %MAX
Free ammonia	30 ppm
Crushing Strength	4 - 5 Kgf
Bulk Density	760-780 Kg/M ³
Practical size Between 2.0-4.5 mm	90% MIN



TGU, AdBlue, Automotive Urea

AdBlue is a high-purity urea solution (32.5% urea in deionized water) used in diesel engines with SCR technology to convert nitrogen oxides (NO_x) into harmless nitrogen (N₂) and water (H₂O).

Features of TGU AdBlue

High Purity

Meets ISO 22241 standards for automotive-grade urea.

Reduces Emissions

Helps diesel vehicles comply with Euro 4, 5, 6, and 7 emission

Non-Toxic & Safe

Colorless, odorless, and biodegradable.

Compatible

Works with SCR systems in trucks, buses, and passenger diesel vehicles.

Where is TGU AdBlue Used?

01 Trucks & Commercial Vehicles
(e.g., Euro 6 compliant trucks)

02 Passenger Diesel Cars
(e.g., Mercedes, BMW, VW, Audi with SCR)

03 Agricultural & Construction Machinery

Chemical Analysis

ELEMENT	RESULT /T.G.U	ELEMENT	RESULT /T.G.U
Chlorides (mg/kg)	<2.0	Cr (mg/kg)	<0.1
Sulphates (mg/kg)	<3.0	Fe (mg/kg)	0.20
Alkalinity as NH ₃ (mg/kg)	55.35	Mg (mg/kg)	<0.1
T.N ₂ (wt.%)	46.45	Ni (mg/kg)	0.20
Density (kg/m ³)	1106.0	K (mg/kg)	0.15
Insoluble matter (mg/kg)	10.00	Cu (mg/kg)	<0.1
Formaldehyde (mg/kg)	< 1.00	Na (mg/kg)	0.25
Formaldehyde (mg/kg)	< 1.00	Zn (mg/kg)	<0.1
Moisture (wt%)	0.09	Biuret (mg/kg)	0.87
AL (mg/kg)	0.35	Po ₄ (mg/kg)	0.20
Ca (mg/kg)	0.50	PH	8.30

Chemical Specifications of Urea Product

Parameters	Limits
Total Nitrogen	≥ 46 wt.% (dry basis)
Bulk density	730 – 790 kg/m ³
Moisture	≤ 0.3 wt.%
Biuret	≤ 1.0 wt.%
Formaldehyde	≤ 0.50 wt.%
Free Ammonia	≤ 150 ppm wt.
Sulphur content	≤ 0.1 wt.%
Particle size (2-4 mm)	≥ 90 wt.%
Hardness	(3.0 kg min crushing strength on 3.15 mm fraction on granules)



05 Potaassium Sulfate



Potassium Sulfate Fertilizers

Specifications

Product Identification

Chemical Name	Potassium sulfate
Chemical Formula	K_2SO_4
Use	Agriculture Fertilizer

Physical Properties

Appearance	White Powder
Solubility in water	Completely soluble in water
Ins. Matter %	0.1% max.
Moisture	0.4% max.
PH (1wt/wt %)	2.9 max.
Sieve Analysis (-0.3 mm.)	≥ 85%

NB: All aspects and consequently results of analysis are on a dry basis

Chemical Properties

Potassium (as K_2O)	50% min.
Total chloride as (Cl)	0.5% max.
SO_3	55.8% max.
K_2SO_4	92% min.
Ca	1.5% max.
Mg	0.08% max.
Na	0.5% max.
Fe	0.05 ±0.01%



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06

Ammonium Nitrate



Ammonium Nitrate

Specifications

Technical, prilled, Dense, white prills, without anticaking agent
Especially suited for the manufacture of laughing gas for
medical and food purposes. (Nitrous oxide)

01 Fertilizers

pH value (10% aqueous solution)	5 - 6
Total Nitrogen	34.8 % MI
Free ammonia	About 0.005 %
Humidity (H ₂ O Content)	0.20 % MAX
Insoluble in water	0.001 % MAX

02 Fertilizers 33.5 % N

Total Nitrogen As N	33.5 + 0.7 %
Filler	4.00 %
Moisture	Max 00.20 %
Practical size Between 1.0—4.0mm	95 % MIN

Treated with anticaking agent.

Porous Prilled Ammonium Nitrate 34.8% N

Specifications

Parameters	Limits
pH	4.8 - 6
Total Nitrogen	34.5 %Min
Ammonium Nitrate As NH_4NO_3	99.46 %Min
Fuel Oil Absorption	10-14 %
Moisture	0.20 % Max
Bulk Density (Free Flowing)	0.65 – 0.75 gm/cm ³
Abel Test	Negative

Treated with anticaking agent of one kg per ton .
Colour : white

Screen Analysis : BALL PRILLS AS :

Over	2.8	mm	2	Max %
Between	1-2.8	mm	96	Min %
Under	1	mm	2	Max %

07 Liquid Ammonia



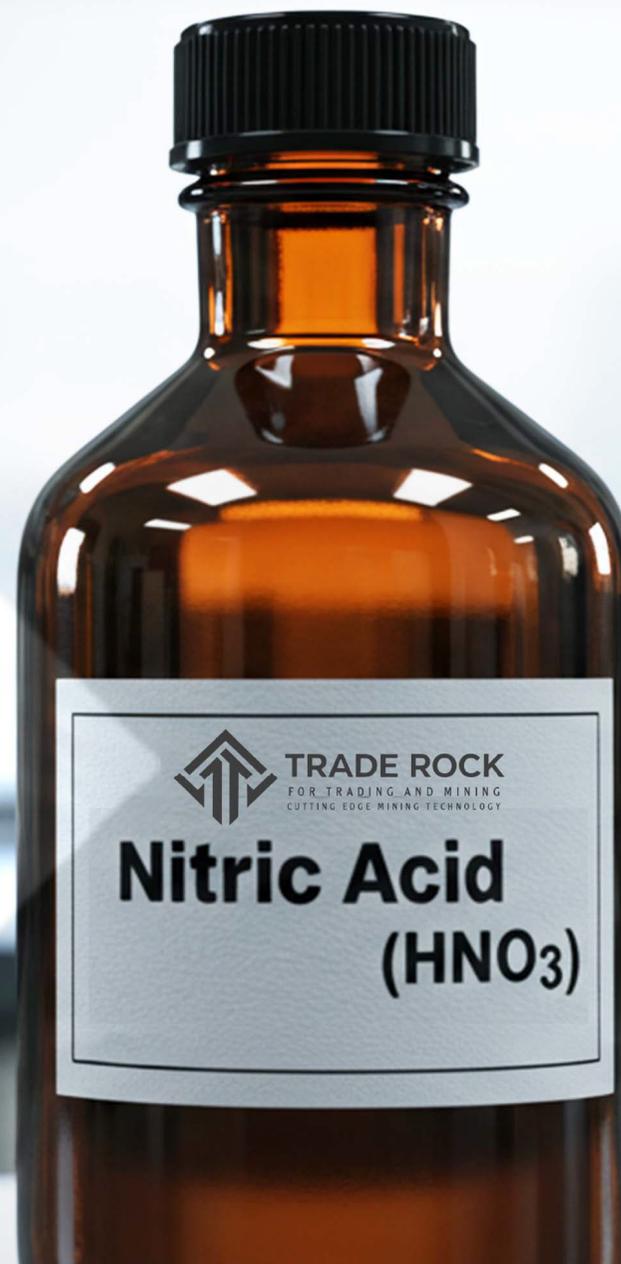
Liquid Ammonia

Specifications

Ammonia as NH ₃	99.85 % wt min
Water as H ₂ O	40 ppm max
Oil	5 ppm wt max
Methane	Absent



08 Nitric Acid



Nitric Acid

Specifications

Analysis	Value
Color	Colorless
Specific gravity at 20 co	1.2847 - 1.3100
Concentration %	46-50%
HNO ₂ Content %	0.0000
NH ₄ NO ₃ Content %	0.2
Chloride	0.0000



09 CAN



Chemical Specifications of

Calcium Ammonium Nitrate Products

Parameters	Limits
Total Nitrogen	27% ±0.5
Nitric nitrogen (N)	13.5% ± 0.25
Ammoniacal nitrogen (N)	13.5% ± 0.25
Total Calcium (CaO)	Min 5%
Total Magnesium (MgO)	Max 5%
Moisture	Max 0.3%
Bulk density	920 – 1050 kg/m ³
Hardness	Min 3 KP
Granule size(2-5mm)	≥90 wt.%
Granule size(<1mm)	1 wt.%
PH of 10% water solution	4.5-8



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TRADE ROCK

FOR TRADING AND MINING
CUTTING EDGE MINING TECHNOLOGY



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03

Industrial Minerals

> 01

Cement

> 02

Clinker

> 03

Gypsum Powder
-(plaster of Paris)



04

Calcium
Carbonate

05

Silica Fume

06

Ferro Silicon
Manganise

07

Caustic Soda Flakes

01 Cement Product

Cement Products

Cement Type	Notes
CEM I 32.5 N & R (LH)	According to Egyptian Standard norm 2013/1-4756 And technically comply With BS EN 197-1/2011
CEM I 32.5 N & SR5	
CEM I 42.5 N & R	
CEM I 42.5 N-SR5	
CEM 152.5 N	
CEM II/ B-P 32.5 N	
CEM II/ A-L 32.5 R	
CEM II/ B-L 32.5 N	
CEM II/ A-S 42.5 N	
CEM II/ B-S 42.5 N	
CEM III/ A 42.5 N	

Cement Type	Notes
Type 1 - ASTM	According to American Standard norm ASTM C-150
Type II - ASTM	
Type V-ASTM	



A

Chemical Composition and physical Properties of Limestone Cement [CEM II/B - L32.5N]

NO	DESCRIPTION(EN 197-1 CEM II/B -L32.5N)		UNIT	VALUE	RANGE
Chemical Composition					
1	Silicon Dioxide	SiO ₂	%	15.45	12.5 -16.0
2	Aluminum Oxide	AL ₂ O ₃	%	4.42	4.3-5.0
3	Ferric Oxide	Fe ₂ O ₃	%	3.11	3.0 - 4
4	Calcium Oxide	CaO	%	61.76	60.5-64
5	Magnesium Oxide (Max 5.0)	MgO	%	0.90	0.6- 2.0
6	Sulfur Trioxide (Max 3.5)	SO ₃ <3.5	%	2.15	2.0 -3.0
7	Chloride < 0.10	Cl ⁻ <0.1	%	0.04	0.02-0.08
8	Insoluble residue (Max 5.0)	I.R < 5	%	0.55	0.3-2.5
9	Loss On ignition		%	12.22	10.0-14.5
10	Free -Lime < 2	F-CaO<2	%	1.1	0.8-1.8
11	Chromium Hexavalent (Max 2.0)	Cr VI < 2	ppm	0.8	0.7 -1.8
12	Alkali Equivalent	Na ₂ O equivalent	%	0.65	0.50- 0.75
13	Sieve 45		%	12	9.0 -14.0
14	Sieve 90		%	0.2	0.00- 0.8
Physics Test					
1	Fineness (Blaine)		Cm ² /g	4275	4100-4800
2	Water consistency		%	25.2	24.5 - 27.0
3	Initial setting time	Min 75	Minutes	117	110-170
4	Final setting time		Minutes	177	160-200
5	7Day (Compressive Strength)	Min 16	MPa	28.1	16 -30
6	28Day (Compressive Strength))	32.5-52.5	MPa	38.9	34.0 -45.0
7	Soundness	Max 10mm	mm	1	0.6 - 4.0

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B Chemical Composition and physical Properties of Ordinary Portland Cement [CEMI 52.5N]

NO	DESCRIPTION (EN 197-1CEMI 52.5N)	UNIT	VALUE	RANGE
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Chemical Composition

1	Silicon Dioxide	SiO ₂	%	19.85	19.70-20.90
2	Aluminum Oxide	AL ₂ O ₃	%	5.70	5.55-5.90
3	Ferric Oxide	Fe ₂ O ₃	%	3.70	3.60 - 4.0
4	Calcium Oxide	CaO	%	64.5	63.80-66.00
5	Magnesium Oxide(Max 5.0)	MgO	%	1.01	0.7 - 3.0
6	Sulfur Trioxide (Max 4.0)	SO ₃ <4	%	2.85	2.5-3.5
7	Chloride < 0.10	Cl ⁻ <0.1	%	0.05	0.02- 0.08
8	Insoluble residue(Max 5.0)	I.R< 5	%	0.49	0.30 - 1.5
9	Loss On ignition	L.O.I< 5	%	2.28	1.5 - 3.0
10	Free -Lime < 2	F-CaO< 2	%	1.26	0.6 - 1.8
11	Chromium Hexavalent (Max 2.0)	Cr VI< 2	ppm	1.5	0.7 - 1.8
12	Alkali Equivalent	Na ₂ O equivalent	%	0.65	0.50- 0.75
13	Sieve 45		%	6.0	4.0 - 10.0
14	Sieve 90		%	0.0	0.00-0.2

Physics Test

1	Fineness (Blaine)		Cm ² /g	3370	3200 -3800
2	Water consistency		%	28.2	26.5-30.0
3	Initial setting time	Min 45	Minutes	150	110-170
4	Final setting time		Minutes	220	180 -300
5	2 Day (Compressive Strength)	Min 20	MPa	26	20-30
6	28Day (Compressive Strength)	Min 52.5	MPa	56	54-60
7	Soundness	Max 10mm	mm	1.15	0.6- 4.0



C Chemical Composition and physical Properties of Ordinary Portland Cement [CEM I 42.5N]

NO	DESCRIPTION (EN 197-1 CEMI 42.5N)		UNIT	VALUE	RANGE
Chemical Composition					
1	Silicon Dioxide	SiO ₂	%	19.4	19.0-20.0
2	Aluminum Oxide	AL ₂ O ₃	%	5.6	5.2-5.70
3	Ferric Oxide	Fe ₂ O ₃	%	3.38	3.3- 3.8
4	Calcium Oxide	CaO	%	63.88	63.0-64.5
5	Magnesium Oxide(Max 5.0)	MgO	%	0.86	0.7- 2.2
6	Sulfur Trioxide (Max 4.0)	SO ₃ <4	%	2.64	2.3-3.0
7	Chloride < 0.10	Cl ⁻ <0.1	%	0.06	0.02-0.08
8	Insoluble residue(Max 5.0)	I.R< 5	%	0.49	0.30-1.5
9	Loss On ignition	L.O.I< 5	%	3.5	2.5 - 4.0
10	Free -Lime < 2	F-CaO< 2	%	1.5	0.6- 1.8
11	Chromium Hexavalent (Max 2.0)	Cr VI< 2	ppm	1.6	0.7- 1.8
12	Alkali Equivalent	Na ₂ O equivalent	%	0.67	0.50- 0.75
13	Sieve 45		%	9.0	7.0 – 12.0
14	Sieve 90		%	0.00	0.00-0.2
Physics Test					
1	Fineness (Blaine)		Cm ² /g	3050	2850-3300
2	Water consistency		%	27.2	26.5-29.0
3	Initial setting time	Min 60	Minutes	132	120-150
4	Final setting time		Minutes	195	180-220
5	2 Day (Compressive Strength)	Min 10	MPa	19.9	18-21
6	28Day (Compressive Strength)	42.5-62.5	MPa	46	44.0- 48.0
7	Soundness	Max 10mm	mm	1.15	0.6- 4.0

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02 Clinker Product



Clinker Products

1 **Clinker 32.5N&R**

2 **Clinker 32.5SRC**

3 **Clinker 42.5N&R**

4 **Clinker 42.5SRC**

5 **Clinker 52.5N**

6 **Clinker C3S>60**

7 **Clinker TypeASTM**

03 GYPSUM POWDER $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



TRADE ROCK

Gypsum Powder -plaster of paris

› Gypsum Powder Applications

The most important applications of gypsum powder are:

- › **Building Products**
- › **Construction**
- › **Plasterboards**
- › **Gypsum fiberboards**
- › **Gypsum blocks**

Gypsum powder is used in the ceramics industry to produce working molds for slip casting of tableware and sanitaryware, in addition to the manufacture of refractory castings, Other uses include not only the production of general casting for decorative plasterwork and modeling applications but also the manufacture of stucco figurines or pieces

Specifications

Mineralogical Analysis Gypsum Stone (RAW)

Ca SO ₄ , 2H ₂ O	96.5%
Ca SO ₄ (Anhydride)	0.9%
CaCO ₃	1.3%
Density	2.62 Ton/m ³
Combined water at 220 °C	19.68-20.6%

Chemical Analysis

Calcium oxide	36.5%
Sulfur trioxide	54%
Magnesium oxide	0.2%
Sodium chloride	0.1%
Calcium sulfate hemihydrate (CaSO ₄ .1/2H ₂ O)	91.3%

Gypsum Powder

plaster of paris

Specifications

Physical Analysis of Gypsum Plaster

Color	Homogeneous brightness white
Combined water ratio	5-6%
Mixing water ratio	50-60%
Particles Fineness	Residue on wire sieve surface \varnothing 3.15 mm = 0% Residue on wire sieve surface \varnothing 1.25 mm = 0% Residue on wire sieve surface \varnothing 0.20 mm < 3%
Initial Setting Time	7-12 min
Final Setting Time	20-30 min
Compressive Strength	>5 N/mm ²
Adhesive strength	0.8 N/mm



04 Calcium Carbonate (CaCO_3)

Calcium Carbonate (CaCO₃)

Calcium carbonate is a white, odorless, tasteless powder or crystal that occurs naturally in rocks such as limestone, chalk, and marble. Chemically, it is a salt made of calcium, carbon, and oxygen. It is one of the most abundant minerals on Earth and is insoluble in water but reacts with acids, releasing carbon dioxide gas.

Types of Calcium Carbonate Based on Use:

01 Ground Calcium Carbonate (GCC):

- o Made by crushing and grinding natural limestone or marble.
- o **Uses:** Plastics, paints, rubber, paper fillers, animal feed, and construction.

02 Precipitated Calcium Carbonate (PCC)

- o **Synthetically produced through** a chemical reaction (usually by reacting quicklime with carbon dioxide in water).
- o **Uses:** Pharmaceuticals, food additives, toothpaste, high-end paper coatings, and cosmetics due to its purity and fine particle size.

03 Activated Calcium Carbonate

- o **Surface-treated calcium carbonate** to enhance performance in polymers and rubber.
- o **Uses:** Plastics, paints, rubber, paper fillers, animal feed, and construction.

04 Coated Calcium Carbonate:

- o **Treated with stearic acid** or similar agents to improve compatibility with polymers.
- o **Uses:** PVC pipes, cables, and plastic masterbatches.

Calcium Carbonate Coated

Specifications

CaCO₃ (Purity) 99.6% Whiteness 97% Brightness 96%



General Uses Across Industries:

- 1- **Construction:** As a primary ingredient in cement, mortar, and concrete.
- 2- **Agriculture:** As a soil conditioner (agricultural lime) and animal feed supplement.
- 3- **Environmental:** Used in flue gas desulfurization and water treatment.
- 4- **Food Industry:** As a calcium supplement and acidity regulator (E170).
- 5- **Pharmaceuticals:** In antacids and calcium tablets.
- 6- **Paper & Paint:** Filler and coating agent to improve brightness and opacity.

05 Silica Fume



Silica Fume

Dry Fine Pozzolan Microsilica

It is known as **Microsilica, Amorphous powder, with particles** approximately 100 times smaller than the average cement particle, it is a highly effective pozzolanic material, its infrastructure $\text{SiO}_2 - X \text{H}_2\text{O}$

It is used in concrete to improve its properties, compressive strength, bond strength and abrasion resistance, help in protection reinforcing steel from corrosion.

It is by product from the manufacture of ferrosilicon alloy.



Specifications

Silica	AS SiO_2	92-95%
Iron oxide	AS Fe_2O_3	0.5-2 %
Aluminum oxide	AS Al_2O_3	Max 1.0%
Magnesium oxide	AS MgO	Max 1.0%
Calcium oxide	AS CaO	Max 0.50%
Alkalis Potassium oxide Sodium oxide	AS K_2O AS Na_2O	1-2%
Carbon	AS C	1-2%
Moisture	AS H_2O	Max 0.20%
PHOSPHORUS	AS P_2O_5	Max 0.10%
SULPHUR	AS SO_3	Max 0.20%
Loss ignition at 1000 c	-----	Max 2.0%
Bulk density	-----	200-400 kg/m ³
Screen analysis Over 50 micron	-----	1.0%
Color (Whitish grey)		54%

06

Ferro Silicon Manganese



Ferro Silicon Manganese (SiMn)

Composition

Ferro silicon manganese (SiMn) is not a single compound, isn't found naturally in Egypt or anywhere else on Earth, It's an alloy produced through industrial processes that combine manganese, silicon, and iron.

But an Alloy Composed Primarily Of Three Elements:

Manganese (Mn):

Typically ranging from 55% to 75% by weight, Manganese acts as a deoxidizer and alloying element, improving steel's strength, toughness, and hardenability.

Silicon (Si):

Typically ranging from 15% to 35% by weight, Silicon acts primarily as a deoxidizer, removing oxygen from molten steel and forming harmless slag

Iron (Fe):

The remaining portion, often referred to as "balance" This iron contributes some deoxidizing effect but mainly serves as a diluent and carrier for the manganese and silicon.

Physical Properties :

01 Melting point

Around 1200-1300°C
(depending on composition)

02 Density

Around 7.0 – 7.8 g/cm³
(denser than pure iron)

03 Electrical conductivity

Lower than pure iron due to the presence of manganese and silicon

04 Magnetic properties

Varies depending on composition, Can be weakly ferromagnetic due to manganese content.

Chemical Properties :

Deoxidation:

Both manganese and silicon readily react with oxygen in molten steel, forming oxides (MnO and SiO) that rise to the slag layer.

Alloying:

Manganese and silicon influence the mechanical properties of steel, Manganese increases strength and hardenability, while silicon can improve strength and corrosion resistance

Ferro Silicon Magnesium Specification

Constituents	PCT
MN	65 % Min
C	2 % Max
SI	15 % Min
P	0.25 % Max
S	0.02 %Max

Size Distribution:
10 – 60 mm 90 %

07

Caustic Soda Flakes



Caustic Soda Flakes 98%

Certificate of Analysis of

• Appearance	White Flakes
• Purity	98.5%.
• Carbonate (Na ₂ CO ₃)	0.4%.
• Chloride (NaCl)	80 ppm.
• Chlorate (NaClO ₃)	30 ppm.
• Sulfate (SO ₄)	15 ppm
• Nickel (Ni)	3 ppm.
• Iron (Fe)	5 ppm.
• SiO ₂	40 ppm.
• Al	1 ppm.
• As	0.1 ppm.
• Pb	2 ppm.
• NH ₄	5 ppm.
• NO ₃	5 ppm.
• PO ₄	3 ppm.
• Cu	nill.

Specification of

• Appearance	White Flakes
• Purity	98.5%.
• Carbonate (Na ₂ CO ₃)	0.5%.
• Chloride (NaCl)	100 ppm.
• Chlorate (NaClO ₃)	30 ppm.
• Sulfate (SO ₄)	25 ppm
• Nickel (Ni)	10 ppm.
• Iron (Fe)	10 ppm.
• SiO ₂	50 ppm.
• Al	2 ppm.
• As	0.2 ppm.
• Pb	2 ppm.
• NH ₄	5 ppm.
• NO ₃	5 ppm.
• PO ₄	3 ppm.
• Cu	nill.



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