

# SILICATES TITANATES MINERAL SANDS



# About Us

Established since 1986, Noble Alchem is engaged in manufacturing wide range of SILICATES & TITANATES for various industries, catering to a wide spectrum of clientele.

### MISSION:

To become the most trusted and reliable supplier of SILICATES & TITANATES, to the best buyers in the world, always produce quality products, be sensible towards environment, and care about employees.

### **INFRASTRUCTURE:**

We are the largest manufacturer of Potassium Silicates & Titanates in INDIA.

With an installed capacity of 30,000 MT, we produce close to 20000 MT of SILICATES & TITANATE in our two manufacturing facilities strategically located at two different geographical locations in INDIA.

For Domestic Markets, we have intentionally developed our own fleet of tankers for bulk deliveries in shortest lead-time. It helps us in reducing the client's logistics & inventory cost and also ensures that the quality is not tempered during the transportation.

For Global Markets, we have done specific tie-ups with various shipping lines & agents to ensure the lowest freight charges, which makes us more competitive.

# Milestones

2018 - 2019

Installed drying facility for powdered Silicates with production capacity of 1200 M.T. Per annum

2014 - 2015

Production Capacity of Silicates enhanced to 30000 M.T. Per annum

Production Capacity of Titanates enhanced to 500 M.T. Per annum

2009 - 2010

Established 2nd plant at Indore (M.P.) with production capacity of 6000 M.T. Per Annum

Production Capacity of Potassium Titanate enhanced to 200 M.T. Per annum

Started Exports to U.S.A., MEXICO, KENYA, TANZANIA, EGYPT, SAUDI ARABIA, MALAYSIA, INDONESIA, PHILIPPINES, VIETNAM and other AMERICAN, AFRICAN & ASIAN markets.

2001 - 2002

Production Capacity of Potassium Silicate enhanced to 6000 M.T. Per annum

Started manufacturing of Potassium Titanate with production capacity of 50 M.T. Per Annum

1994 - 1995

Production Capacity of Potassium Silicate enhanced to 3000 M.T. Per annum

1986 - 1987

Established Bhiwani Unit for manufacturing of Potassium Silicate having production capacity of 1000 M.T. Per annum







## QUALITY CONTROL **& ASSURANCE**

Quality is our core strength. We believe "Quality is Religion".

To meet the highest Quality Standards, a team of young. highly qualified, dedicated and well experienced professionals are working throughout the process.

Quality Control on all products starts right at the raw material stage. Buyers that associate with us even once, stay with the company forever. This is a testimony of our firm commitment to quality & exceptional service.

We, at Noble, are committed to continually improving the effectiveness of the Quality Management System of the Organization.

We have installed the most modern machineries and best quality testing equipments like XRF, PSA, SEM, Viscometer etc. to ensure that only the specified goods, according to client's specifications, leave the plant.

### **PACKING OPTIONS**

- Tanker load
- IBC
- Drums
- Flexi Tank
- ISO Tank Container
- 25 KG HDPE / PAPER Bags
- Jumbo bags

**Worldwide Satisfied Customers** 











**SEM** 

**XRD** 

MiniFlex

**PSA** 

**XRF** 







### QUALITY CONTROL **& ASSURANCE**

Certificate No.: 001-04021 - Q

# Certificate of Approval This is to certify that the Quality Management System

### Noble Alchem (P) Ltd.

5 KM Stone, VPO Haluwas, Dadri Road, Bhiwani - 127 021, Haryana, India.

has been examined by Assessors of QMS International Certifications Pvt. Ltd. and found to be conforming to the requirements of

ISO 9001:2015

In respect of the following activities:

Manufacture and Supply of Silicates & Titanates (Potassium, Sodium, Lithium, Zirconium, Calcium & Mixed)"

Current Issue Date 06/12/2022, Valid till 27/02/2025\* Original Certification 17/03/2004









Juality Management System







# PRODUCTS & SPECIFICATIONS

The welding electrode segment is growing very rapidly and we believe our products & technology offer the welding rod manufacturers, flexibility and value addition that gives them the edge in the market place.

Manufacturing of many industrial elements is based on Welding. To deliver the best quality industrial products, the quality of welded joints has to be perfect, which depends on welding rods and to do so, the manufacturer has to carefully select the welding additives to the composition.

#### **SILICATES**

Today, silicates are often the main welding additives and their function widely exceeds that of a simple binder.

**Smooth Extrusion, Quiet Burning** and **Low Arc Spattering** are some of the attributes, which depend upon the quality of SILICATES.

We manufacture **Potassium, Sodium, Lithium** and **Mixed Silicates** of the highest purity. Silicates are available as liquids, solids (lumps) and powders.

Our experienced specialists develop customized solutions to meet the requirement of our customers.



POTASSIUM SILICATE LUMPS				
Grade	K Silicate			
Weight Ratio	2.0 to 2.1			
K₂0 (%)	30 to 35			
Na₂O (%)	Nil			
SiO <sub>2</sub> (%)	65 to 70			
Mole Ratio	3.1 to 3.3			
Total Solids	> 99%			
Color	Transparent			



POTASSIUM SILICATE POWDER				
Grade	PSP-16	PSP-21		
K₂0 (%)	35 to 40	27 to 30		
Na₂O (%)	Nil	Nil		
SiO <sub>2</sub> (%)	54 to 58	56 to 62		
H₂0 (%)	5% Max	10% Max		
Weight Ratio	1.45 to 1.65 2.0 to 2.2			
Solubility	< 100 Sec. < 100 Sec.			
Color	White White			





POTASSIUM SILICATE LIQUID (REGULAR / PREMIUM)					
Grade	K-66	K-76	K-120		
Weight Ratio	2.0 to 2.1	2.0 to 2.1	1.45 to 1.55		
K₂0 (%)	10 to 12	12 to 14	18 to 20		
SiO <sub>2</sub> (%)	20 to 24	26 to 28	26 to 28		
Viscosity (cps)*	35 to 70	200 to 300	300 to 500		
Sp. Gravity*	1.33 to 1.35	1.38 to 1.40	1.45 to 1.50		
Baume*	36 to 38	39 to 41	45 to 49		



\*at 30°C



SODIUM SILICATE LIQUID (REGULAR / PREMIUM)				
Grade	NA-80	NA-100		
Weight Ratio	3.0 to 3.5	2.0 to 2.4		
Na₂O (%)	8.5 to 10 13.5 to 14.5			
SiO <sub>2</sub> (%)	24 to 30	27 to 30		
Viscosity (cps)*	200 to 300 100 to 200			
Sp. Gravity*	1.37 to 1.42 1.45 to 1.50			
Baume*	39 to 43	45 to 49		

\*at 30°C

MIXED SILICATE LIQUID				
Grade	K Na	K Li		
K₂0 (%)	6 to 7	10 to 12		
Li₂0 (%)	-	0.5 to 1.0		
Na₂O (%)	4 to 5	1.0 to 2.0		
SiO <sub>2</sub> (%)	26 to 28	26 to 28		
Viscosity (cps)*	100 to 150	50 to 150		
Sp. Gravity*	1.38 to 1.40	1.36 to 1.40		
Baume*	39 to 41	38 to 41		







LITHIUM SILICATE LIQUID			
Grade LSL-25			
Li <sub>2</sub> 0 (%)	2.50 approx.		
SiO <sub>2</sub> (%)	20.50 approx.		
Solids	23.00 approx.		
Sp. Gravity*	1.20 approx.		
Viscosity (cps)*	20.00 approx.		
Weight Ratio	8.20 approx.		

\*at 30°C



# PRODUCTS & SPECIFICATIONS

### **TITANATES**

Our Potassium, Sodium & Mixed TITANATES are widely used in low hydrogen electrode, AC/DC electrode, stainless steel electrode and flux-cored wire.

These additive agents are included in flux formulations to:

- Enhance wear resistance in high temperature formulations that require chemical stability.
- Reduce arc voltage & provide arc stability.
- Reduce spattering.
- Provide fine welding line and enhance bonding characteristics.
- Improve slag mobility.

Our experienced specialists develop customized solutions to meet the requirement of our customers.

TITANATES				
Grade Parameter	Potassium Titanate	Sodium Titanate	Sodium Silico Titanate	Potassium Sodium Silico Titanate
Color				
	White/Cream	Yellow	Grey	Grey
TiO <sub>2</sub> (%)	74 to 80	75 to 85	57 to 63	43 to 53
K₂0 (%)	17 to 22	0.5 Max	0.5 Max	18 to 22
Na₂O (%)	0.5 Max	12 to 20	10 to 15	3 to 7
SiO <sub>2</sub> (%)	1.0 Max	1.0 Max	23 to 28	22 to 27
S (%)	0.1 Max	0.1 Max	0.1 Max	0.1 Max
P (%)	0.04 Max	0.04 Max	0.04 Max	0.04 Max
H <sub>2</sub> O (%)	0.5 Max	0.5 Max	0.5 Max	0.5 Max
Mesh Size	Customized	Customized	Customized	Customized





# PRODUCTS & SPECIFICATIONS

### **MINERAL SANDS**

Noble Alchem has developed itself into a renowned supplier of Natural Rutile Sand and Ilmenite sand, which are very versatile and are the key ingredients of welding electrodes.

We procure the best grades of Rutile & Ilmenite from global locations to feed the customers demand.



NATURAL RUTILE					
Parameter	Unit	T1	-95	T1-92	T1-90
TiO <sub>2</sub>	%	95.0	Min.	92.0 Min.	90.0 Min.
Fe <sub>2</sub> O <sub>3</sub>	%	1.5	Max.	2.0 Max.	2.5 Max.
Al <sub>2</sub> O <sub>3</sub>	%	0.5	Max.	0.5 Max.	0.5 Max.
SiO <sub>2</sub>	%	1.5 Max.		2.5 Max.	3.0 Max.
	Mesh			Result	
	60	·	Nil		
	-60	·	100%		



ILMENITE				
Parameter	Unit		T1-95	
TiO <sub>2</sub>	%		50.0 Min.	
Fe <sub>2</sub> O <sub>3</sub>	%		30.0 Min.	
Fe0	%		15.0 Min.	
SiO <sub>2</sub>	%		2.5 Max.	
Mesh	Result		Result	
60	Nil		Nil	
-60	-60		100%	

Packing Option: 1 Ton Jumbo Bag