



## Larestan Cement Co.

### MATERIAL SAFETY DATA SHEET

Portland White Cement & Clinker

### STATEMENT OF HAZARDOUS NATURE

This product is classified as hazardous according to criteria of Work safe Australia

### IDENTIFICATION

Product name :	Portland White Cement & Clinker
Other names:	
UN number:	None
Dangerous goods class and subsidiary risk:	none allocated
Hazchem code:	none allocated
Poisons schedule number:	none allocated
Use:	White clinker is used for producing of white cement

### Physical Description /Properties

Appearance:	Light green to white granule varying size from 0.5 to 30 mm
Boiling point/melting point:	Melting point > 1200°C
Vapour pressure:	Not applicable
Specific gravity:	1200-1400kg/m <sup>3</sup>
Flashpoint:	not applicable
Flammability limits:	not applicable
Solubility in water:	Slight, reacts on mixing with water to form an inert complex silicate.



## Larestan Cement Co.

### PRECAUTIONS FOR US

- Exposure Limits:** White Cement clinker is classified an inert nuisance dust.
- TLV:** 5mg/m for respirable dust and 70mg/m for total dust
- Wet White Cement clinker, particularly in plastic (UN hardened) concrete. Mortar or Slurry. can dry the skin and cause alkali burns. Continued exposure to individuals who Are allergic to chromium., may cause severe allergic dermatitis.
- Ventilation:** Where practical, suitable means of dust collection/suppression should be applied as Necessary to maintain acceptable air borne dust levels.
- Persons with history of respiratory illness or reduced pulmonary function should avoid Work places with high levels.
- Personal Protection:** in dusty environment, the use of filter masks in AS 1714(class L) and tight-fitting goggles is Advised.

It is recommended that the use of impervious gloves, boots and clothing is worn to Protect the skin from contact with dust and wet white Cement clinker. Barrier creams may also be used.

Following work with White Cement clinker, a shower with soap and water is recommended.

- Flammability:** White Cement clinker is non- combustible.

### SAFE HANDLING INFORMATION

**Handling and Storage:** White Cement clinker can be stored in containers or in outdoor place but should be prevent ingress of moisture as this

Will cause it to set and harden in storage.

**Transportation:** Transportation is usually in bulk rail or road tankers, and not hazardous under us DOT or TDG regulations.

**Spills and Disposal:** Spills may be cleaned up by any dry method such as broom, shovel or device,

With care taken to minimise dust evolution into the worker environment.

Clean up personnel should wear full cover clothing, gloves, boots, dust masks and

Goggles.



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### INGREDIENTS

Hypothetical Components	Percentage by weight
Tri Calcium Silicate	50-60
Di Calcium Silicate	25-35
Tri Calcium Aluminate	12-14
Tetra Calcium Alumino Ferrite	1.2-1.4
Magnesium Oxide	1.7-2.2
Free Calcium Oxide	2.0-4.0
Sodium Salts	0.35-0.5
Potassium Salts	0.20-0.35
Gypsum	3.0-5.0
Ground Granulated Blast Furnace Slag	0.0

### HEALTH HAZARD INFORMATION

#### HEALTH EFFECTS

Acute: (effect may occur immediately after a single exposure)

Swallowed:	Mild corrosive action.
Eyes:	Short-term exposure, Irritating. Long-term exposure, irritating may cause inflammation of cornea.
Skin:	Short-term exposure irritating. Long-term exposure, wet Portland Cement clinker, especially as ingredient in plastic (unhardened) mortar or slurry, is slightly caustic and can dry the skin. There are also trace amounts of water-soluble hexavalent chromium present Cement(0-20ppm) and in some individual may cause allergic dermatitis.
Inhaled:	Short-term exposure, irritating. Long-term exposure may cause inflammation of lining of the respiratory system.

#### FIRST AID

Swallowed:	Wash mouth and lips with water. Do not induce vomiting; give water containing sugar or milk to drink. Seek medical attention.
Eyes:	Irrigate with copious water for at least 10 minutes. Seek medical attention.
Skin:	Wash with tepid soapy water. A shower may be required.
Inhaled:	Move to fresh air. Wash with water and seek medical attention if effects persist.
Advise to Doctor:	Contact a poisons information centre.



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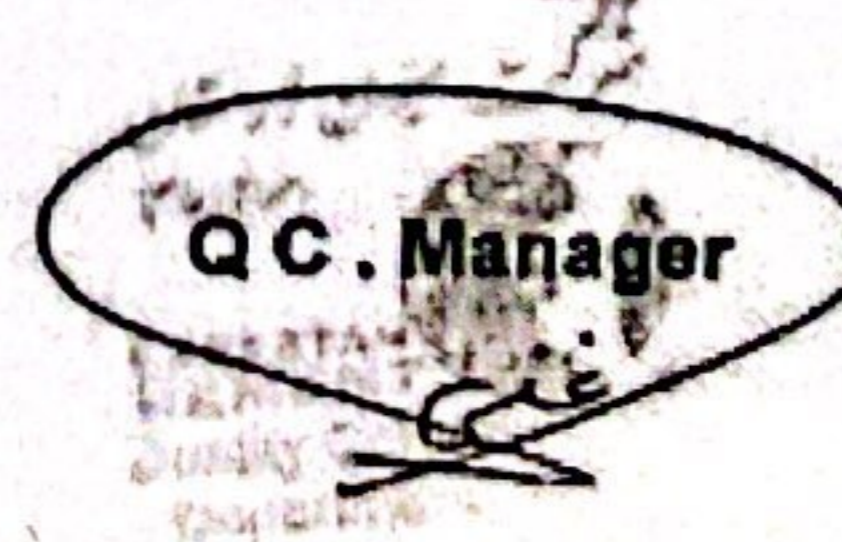
### Larestan Cement Co TEST REPORT FOR WHITE CEMENT CLINKER

Chemical Analysis	*Acceptable Range	**Acceptable Range	Test Result
SiO2 %	.....	.....	23.5-24.0
Al2O3 %	.....	.....	5.0-5.5
Fe2O3 %	.....	.....	0.40-0.45
CaO %	.....	.....	64.5-66.0
MgO %	< 5.0	< 5.0	1.8-2.2
SO3 %	< 3.5	< 3.5	0.8-1.2
LOI%	< 4.0	< 5.0	2.0-4.0
Na2O%	.....	.....	0.40-0.50
K2O%	.....	.....	0.25-0.35
Whiteness	.....	.....	90.0-92.0
LSF	.....	.....	89.0-91.0
SIM	.....	.....	4.0-4.4
ALM	.....	.....	12.0-14.0
C3S%	.....	.....	48.0-58.0
C2S%	.....	.....	25.0-35.0
C3A%	.....	.....	12.0-14.0
C4AF%	.....	.....	1.2-1.4
W.L	.....	.....	1050-1200
Free Lime %	.....	.....	2.0-4.0

\* As per National Iranian Standard Organization

\*\* As per BS Standard EN 197-1 , 42.5

کد فرم : FR 302-00



# Larestan Cement Co.

## Larestan Cement Co Chemical & Physical Specification of White Cement

### TEST REPORT



Chemical Analysis	*	**	Test Result	Physical Specification	*	**	Test Result
SiO <sub>2</sub> %	.....	.....	21.5-22.5	Autoclave Expansion %	< 0.8	< 10mm	0.02-0.10
Al <sub>2</sub> O <sub>3</sub> %	.....	.....	4.8-5.1	Setting Time (min)	Initial	> 45	> 60
Fe <sub>2</sub> O <sub>3</sub> %	.....	.....	0.40-0.44			Final	< 480
CaO %	.....	.....	63.5-64.5	Blaine (cm <sup>2</sup> /gr)	> 3000	.....	4000-4400
MgO %	< 5.0	< 5.0	1.7-2.0			Free Lime %	.....
SO <sub>3</sub> %	< 3.5	< 3.5	2.5-3.0	Compressive Strength kg/cm <sup>2</sup>	2Days		> 100
LOI %	< 4.0	< 5.0	2.5-4.0			7 Days	> 200
Ins. Res %	< 1.5	< 5.0	0.2-0.4	28 Days	> 325		> 425
Na <sub>2</sub> O %	.....	.....	0.35-0.45		370-450		
K <sub>2</sub> O %	.....	.....	0.20-0.30				
Whiteness %	.....	.....	90.0-92.0				
LSF	.....	.....	92.0-96.0				
SIM	.....	.....	3.9-4.3				
ALM	.....	.....	11.0-13.0				
C <sub>3</sub> S %	.....	.....	48.0-56.0				
C <sub>2</sub> S %	.....	.....	22.0-28.0				
C <sub>3</sub> A %	.....	.....	12.0-13.0				
C <sub>4</sub> AF %	.....	.....	1.25-1.35				

\* Acceptable range as per National Iranian Standard Organization

\*\* Acceptable range as per BS Standard EN 197-1, 42.5

FR 302-00



\* As per National Iranian Standard Organization

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### OTHER INFORMATION

In June 1997 crystalline silica was evaluated by International Agency for Research on

Cancer (IARC):” Crystalline silica inhaled in the form of cristobalite from occupational

Sources is carcinogenic to humans (Group1)”.

Smoking: Cigarette smoking increases the risk of occupational respiratory diseases.

that all storage and work areas should be smoke-free zone.

### CONTACT POINT

For further information on this product, contact:

Larestan Cement Co

Tel:0098 21-22274938-9

Info@Larestancement.com

Advice Note:

The information in this believed to be accurate.

The provision of this information should not be as recommendation to use product in violation of any patent rights or in breach of any statute or regulation, Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Users should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace and in conjunction with other substances or products.

