

PRODUCT DATA SHEET

LIMESTONE CEMENT (CEM II A/L):



NAJMAT AL-SAMAWA
اسمنت نجمة السماوة



Our Limestone Cement (CEM IIA-L) is used in plain concrete & civil construction, higher concrete strength, building structure with higher initial strength, reinforced concrete strength, with ecological benefits of low carbon emission.

COMPLIANCE WITH:

TS-EN 197-1 2002 CEM II /AL 42.5 R
SANS-EN-197-1 2013 CEM II /AL 42.5 R
PS 232-2015 CEMII/AL 42.5 R
BS EN -197-1-2011 CEM II /AL 42.5 R

CEMENT PROPERTIES:

CHEMICAL COMPOSITION

| CHEMICAL ANALYSIS | STANDARD LIMIT | TYPICAL VALUE |
|---------------------|----------------|---------------|
| LOSS ON IGNITION % | NO LIMIT | ≤ 6.5 |
| INSOLUBLE RESIDUE % | NO LIMIT | ≤ 1.0 |
| SO ₃ % | ≤ 4.0 | ≤ 4.0 |
| CHLORIDE % | ≤ 0.10 | ≤ 0.10 |

MECHANICAL & PHYSICAL REQUIREMENTS

| PROPERTY | STANDARD LIMIT | TYPICAL VALUE |
|---------------------------------------|----------------|---------------|
| COMPRESSIVE STRENGTH (28 DAYS) MPA | ≥42.5 ≤62.5 | ≥ 42.5 |
| SETTING TIME (MIN) | INITIAL ≥ 60 | ≥ 60 |
| | FINAL ≤ 600 | ≤ 600 |

ADVANTAGES:

- High Early Strength.
- Durable & sustainable.
- Suitable workability to be placed on form work, consolidated & satisfactory surface finish.
- Stable mix (avoiding of bleeding & segregation during transport & placing).
- Improve block makers, productivity by reducing de moulding time.





APPLICATION:

Ideal for Architectural concrete due to light colour, Low heat of Hydration .

| BUILDINGS | CIVIL | TRANSPORT | WATER | AGRICULTURE |
|-----------|-----------------|-----------|--------|-------------|
| FLOORS | PIERS | ROADS | PIPES | BUILDINGS |
| PILES | BLOCKS | PATHWAYS | DRAINS | PROCESSING |
| BRICKS | RETAINING WALLS | CROSSING | CANALS | HOUSING |
| MORTAR | WARE HOUSING | VIADUCT | POOLS | IRRIGATION |
| PANELS | POLES | PARKING | | |
| PLASTER | PYLONS | | | |
| | FENCING | | | |



DELIVERY:

Najmat Al Samawa CEM II-A/L cement is supplied both in Bags as well as in Bulk.

GENERAL RECOMMENDATION:



WATER:

Keep water to cement ratio (W/C) low, As the W/C decreases the distance between the cement particles in the paste decreases. The smaller the inter particle spacing, the faster the cement hydration products can fill these spaces, & stronger the links between particles created by these hydration products. As a result, the porosity of the paste decreases & the concrete becomes more impermeable.

Make sure to use normal water (odorless, colorless, no turbidly etc.) for mixing & curing.



CURING:

For proper hydration curing is important. Concrete or plaster should be cured at least for seven days. As temperature rise lead to drying shrinkage, which lead to cracking. Strength increases with proper curing, due to hydration & less evaporation.



MIXING:

It is better to mix the constituents in a fully automatic batching plant. For non -automated concrete production (hand mixing) accurate measurements of all ingredients with a suitable container (wheel barrow or bucket) at least for 3 to 5 minutes.



STORAGE:

Maximum number of bags stored should be 10.

Bags should be placed at least one foot above the ground & side walls.

Bulk cement should be stored in damp proof silos.



HEALTH & SAFETY:

Cement & Concrete may cause Skin burn & ulceration due to alkaline nature of mix.

The eyes are particularly vulnerable with increasing contact time.

Seek medical advice without any delay.

In case of skin contact wash the skin with soap & water, if irritation persist seek medical advice without any delay.

Use proper PPE, s for concrete (glasses, gloves etc.).