



■ High Early Strength

■ Low Alkali Content

■ Low Heat of Hydration

■ Containerised Solutions





Tiger Concrete Trust
CEMENT
LIMITED

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Leading **Manufacturer & Exporter** of Cement from **Pakistan**

INTRODUCTION

Tiger Cement Limited

Cement is the most widely used construction material worldwide. Whether in bags or in bulk, Tiger Cement provides its customers with high-quality branded cement products for their construction needs. We are the Manufacturer and Exporter of Tiger Brand Cement Products.

Tiger Cement Limited Products:

- Ordinary Portland Cement – OPC 42.5 Normal – CPA45
- Sulphate Resistant Cement – SRC 42.5 Rapid – CPJ45
- Portland Blast Furnace Slag Cement – PBFSC 32.5 CEMIII/A

Tiger Cement Limited Manufacturing Standards:

Ordinary Portland Cement

- British Standard BS 12/1996
- European Standards EN 197-1/ 2000
- American Standard ASTM C-150 Type 1
- Pakistan Standard PSS - 232/1983

Sulphate Resistant Cement

- British Standard BS 4027/1980
- Pakistan Standard PS 612/1989

Portland Blast Furnace Slag Cement

- European Standard EN 197-1/2000

Tiger Cement Limited Capabilities and Deliverance:

- TCL is capable of delivering 7,500 tons per day of dry process Cement.
- TCL have provision for two Packers of 160 tons/hour each.
- TCL can dispatch Cement in 20ft FCL Containers, Break-Bulk & in self discharging pneumatic bulk vessels.
- TCL is able to offer competitive cement prices due to its geographical location.
- TCL is a regular exporter of Cement and Clinker to several construction companies and consumers.
- TCL products can be used in all general constructions especially in major prestigious projects where Cement is needed to meet stringent quality requirements.
- TCL products can also be used in concrete mortars and grouts, concrete works, blocks and bricks, high rise buildings, dams, bridges & roads.

Environment Policy

- Tiger Cement Limited aims and objectives form the basis for its EMS.
- Tiger Cement Limited is endorsed and actively supported by senior management and accepted by its entire staff.
- Tiger Cement Limited communicates its aims and objectives to employees and other interested parties, including shareholders, customers and suppliers.



Ordinary Portland Cement OPC 42.5 Normal – CPA45

Ordinary Portland Cement

OPC 42.5 Normal – CPA45

Ordinary Portland Cement is the most common cement used in general concrete construction when there is no exposure to sulphates in the soil or groundwater.

Tiger Cement Limited is one of the best maintained companies for exporting Ordinary Portland Cement from Pakistan and is managed by qualified and expert cement field specialists.

Quality Management

Tiger Cement Limited always gives major emphasis in manufacturing high quality cement through stringent quality control techniques and computerized control systems using state of the art sophisticated. The company has got one of the best equipped laboratories, having all facilities for analysis of raw material, semi furnished product, furnished product and fuel, to ensure the supply of high quality product to market.

Application

The product has been designed to give enhance concrete properties in the fresh “wet” state with adequate high early strength levels upon setting and hardening. TIGER OPC is used in all general construction especially in major prestigious projects where cement has to meet stringent quality requirements. It can be used in concrete, mortars and grouts etc. Tiger OPC is compatible, consumable with admixture, retarders etc.

Packing

- 50 Kg Polypropylene Bags
- 1 Metric Ton Sling Bags
- 1 Metric Ton Jumbo Bags

Assured Compliance With

British Standard	BS 12 / 1996
American Standard	ASTM C - 150 Type 1
European Standard	EN 197 – 1 / 2000
Pakistan Standard	PSS 232 / 1983



Specification of Ordinary Portland Cement OPC 42.5N

CHEMICAL COMPOSITION	PSS 232 / 1983	BS 12 / 1996	EN 197-1/2000	TIGER RESULTS
Loss on Ignition (LOI) %	3.00 Max	4.00 Max	4.00 Max	01.92
Insoluble Residue (I.R) %	1.50 Max	1.5 Max	1.50 Max	00.40
Silicon Oxide (SiO ₂) %	-----	-----	-----	20.25
Aluminum Oxide (Al ₂ O ₃) %	-----	-----	-----	04.77
Iron Oxide (Fe ₂ O ₃) %	-----	-----	-----	03.54
Calcium Oxide (CaO) %	-----	-----	-----	63.34
Magnesium Oxide (MgO)	4.00 Max	4.00 Max	5.00 Max	02.84
Sulphur Trioxide (SO ₃) %	C ₃ A ≤ 5.0 %	3.00 Max	3.50 Max	01.75
	C ₃ A < 5 When SO ₃ ≤ 2.5			
	C ₃ A ≥ 5 When SO ₃ ≤ 3.0			
Lime Saturation Factor (L.S.F) %	0.66 ~ 1.02	Not < 0.66 & Not > 1.02	0.66-1.02	00.96
Alkali Eq.	-----	-----	-----	00.60
C ₃ S	-----	-----	-----	53.80
C ₂ S	-----	-----	-----	20.19
C ₃ A	-----	-----	-----	06.40
C ₄ AF	-----	-----	-----	12.04
Chloride (Cl)	-----	-----	-----	00.01

PHYSICAL TEST

Initial Time	45 Min	45 Min	45 Min	185
Final Time	600 Max	600 Max	600 Max	285
Blaine (cm ² /gm)	2250 Min	2250 Min	2300 Min	2980
Expansion (mm)	10 Max	10 Max	10 Max	0.50

COMPRESSIVE STRENGTH

02 Days	-----	1450 Min (PSI)	10.00 Min (Mpa)	23.13
07 Days	3400 Min	-----	-----	35.25
28 Days	5000 Min	5000 Min (PSI)	42.5 (Mpa)	48.44



Sulphate Resistant Cement SRC 42.5 RAPID – CPJ45

Sulphate Resistant Cement

SRC 42.5 Rapid – CPJ45

Sulphate Resistant Cement is highly suitable for concrete structures subject to sulfates rich environment. This is highly suitable where sulfates present in soil, groundwater, seawater, etc. are in concentrations that would damage concrete made with normal Portland cement.

Tiger Sulphate Resistant Cement provide effective and long lasting strength against sulphate attacks and is very suitable for constructions near sea shores as well as for canals linings. It provides very effective protection against alkali attacks.

Quality Management

Tiger Sulphate Resistant Cement's best quality is to provide effective and long lasting strength against sulphate attacks and is very suitable for constructions near sea shores as well as for canal linings. Sulphate Resistant Cement is a dark colored Portland Cement which is manufactured from clinker of low C3A content and undergoes grinding with a reduced proportion of Gypsum than Ordinary Portland Cement.

Application

Tiger Sulphate Resistant Cement is used in concrete exposed to severe Sulphate action where soil or ground water have high Sulphate content. Areas that are saline, water logged, near the sea have a very high proportion of sulphate salts, and therefore it is crucial that Sulphate Resistant Cement is used in these areas.

Packing

- 50 Kg Polypropylene Bags
- 1 Metric Ton Sling Bags
- 1 Metric Ton Jumbo Bags

Assured Compliance With

British Standard	BS 4027 / 1980
Pakistan Standard	PS 612 / 1989



Specification of Sulphate Resistant Cement SRC 42.5R

CHEMICAL COMPOSITION

	PS 612 / 1989	BS 4027 / 1980	TIGER RESULTS
LSF	1.02 - 0.66	1.02 - 0.66	0.95
C ₃ A	3.50 (Max)	3.50 (Max)	2.20
SO ₃	2.50 (Max)	2.50 (Max)	2.20
L.O.I.	3.00 (Max)	3.00 (Max)	1.20

PHYSICAL TEST

Fineness	2500 M ² /kg	2500 M ² /kg	2800 M ² /kg
Soundness	5 mm (Max)	5 mm (Max)	1 mm (Max)
Initial Time	45 Mts (Min)	45 Mts (Min)	123 Mts
Final Time	10 Hrs (Max)	10 Hrs (Max)	196 Mts

COMPRESSIVE STRENGTH

03 Days	15 N/mm ²	20 N/mm ²	23 N/mm ²
07 Days	23.5 N/mm ²	No limit	32 N/mm ²
28 Days	34 N/mm ²	39 N/mm ²	40 N/mm ²



Portland Blast Furnace Slag Cement PBFSC 32.5 – CEM III/A

Portland Blast Furnace Slag Cement

PBFSC 32.5 – CEM III/A

Slag Cement, has been incorporated into concrete projects for over a century to improve durability and reduce life cycle costs. Among its measurable benefits in concrete are better workability and finish ability, higher compressive aggressive chemicals.

Tiger Portland Blast Furnace Slag Cement is special blended cement with low heat of hydration characteristics for mass concreting. Concrete produced using Portland Blast Furnace Slag Cement has chloride and sulphate resisting properties with improved durability.

Application of Slag Cement

- 1 - Mass concrete foundations and dam which require low heat of hydration.
- 2 - Marine concrete structures exposed to sea water and sulphates.
- 3 - Water retaining structures where improvement in impermeability is essential.
- 4 - Sub-structure, bored piles, pre-case piles and products positioned in soil containing chlorides or moderate content of sulphates.
- 5 - Concrete which may consist of alkali reactive aggregates

Packing

- 50 Kg Polypropylene Bags
- 1 Metric Ton Sling Bags
- 1 Metric Ton Jumbo Bags

Assured Compliance With

European Standard	EN 197-1 / 2000
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Specification of Slag Cement PBFSC 32.5

CHEMICAL COMPOSITION

	EN 197-1 / 2000	TIGER RESULTS
L.O.I	Not more than 4.0%	1.86
SiO ₂	Not Specified	22.19
Al ₂ O ₃	Not Specified	4.88
Fe ₂ O ₃	Not Specified	3.86
CaO	Not Specified	60.61
MgO	Not more than 7.0%	2.55
SO ₃	Not more than 3.0%	1.77
T. Alkalies	Not Specified	0.48
I.R.	Not more than 1.50%	0.72

PHYSICAL TEST

Residue 1702	Not more than 10.0%	5.4
Blaine (cm ² /gm)	Not less than 2250	2958
Initial Time	Not less than 75 minutes	195
Final Time	Not more than 600 minutes	220
Soundness Expansion	Not more than 10.0 minutes	Nil

COMPRESSIVE STRENGTH

03 Days	Not less than 2200 PSI	3216
07 Days	Not less than 3400 PSI	21.4
28 Days	Not less than 5000 PSI	40.4



SERVICES

Best Quality Cement, Flexible Payment Process, Short Delivery Time,
Freight Arrangements, Cargo Inspection & Cargo Insurance



SERVICES

Best Quality Cement

We are manufacturing and exporting the best quality of Ordinary Portland Cement OPC 42.5, Sulphate Resistant Cement SRC 42.5 and Slag Cement PBFSC 32.5. Our high quality cement surpasses several standards PSS-232/1983, BS 12/1996, EN 197-1/2000 and ASTM C 150 - Type1.

We always gives major emphasis in manufacturing high quality cement through stringent quality control techniques and computerized control systems using state of art sophisticated equipments like DCS (Distributed Control System), PLCs (Programmable Logic Controllers) and on line X-Ray Analyzers.

Flexible Payment Process

We offer several flexible payment options to our regular cement buyers, including Letter of Credit at Sight, 30% Advance and 70% on the presentation of Original documents, 50% Advance and 50% on Fax/Email of Copy documents; credit line option is also available for our regular buyers.

100% Letter of Credit for Payment at Sight through 1st Class Top 20 US/EU Banks. L/C should be Irrevocable, Non-Transferable Confirmed. African Banks Letter of Credits to be confirmed from US / EU. Our Banks are available for your ready reference to ensure our regular satisfactory conduction of cement exports business through them.

Short Delivery Time

We offer Guaranteed lowest delivery time to the all our esteemed buyers understanding their needs for timely deliveries. We usually commit only spot deals which enables us to ship our cement products on time.

We possess our own fleet of 130 trucks for carrying empty containers from port area to our facilities & after the loading of containers & inspection; they are moved back to the port area. Some of these facilities enable us to provide the shipments on time without any delays in transportation & the unnecessary hassels in facing shut-outs and space issues from the Shipping Lines and carriers.

Freight Arrangements

We also negotiate best container freight prices from the reliable shipping lines & carriers on behalf of our cement buyers & consumers. Our local presence and volumes enable us to get the required freight prices, shortest transit time, no shut-outs, more free time at destination ports and waiver of several destination port charges.

We have our own logistics support for transportation of containerized shipments from factory to loading port. Our years of experience in sea transportation and freight ensures safe and on time delivery of shipments at destination ports. Special requirement for the Bulk shipment and Self Discharge Pneumatic Vessel is also available.

Cargo Inspection

Our offered Cement prices always include third party inspection to ensure buyer's interest. We recommend SGS, Bureau Veritas (BIVAC), Intertek and Cotecna for inspections at loading port. Our Inspections include complete physical & chemical analysis compressive strength 2 Days, 3 Days, 7 Days and 28 Days.

Beside our analysis report, we also provide complete photographs of shipments during the loading and the inspection of cargo attested by third party inspection companies. Our standards are maintained according to the standards set by the ISO (International Standards Organization).

Cargo Insurance

Our offered cement prices can be inclusive of comprehensive insurance of the cargo from World Top 20 A1+ rated European insurance companies covering all risks and aspects to avoid any type of losses occurred during the handling of the cargo including loading, transportation and unloading.

Providing the complete cover to our cement buyers, consumers and customers from our loading facility to the landed designated warehouse. Working with Tiger Cement Limited ensures complete satisfaction of cargo till it reaches your warehouse. Our all cement buyers are satisfied for our insurance service. We provide a great cover for our all cement buyers.

INSPECTION COMPANIES



SHIPPING LINES





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