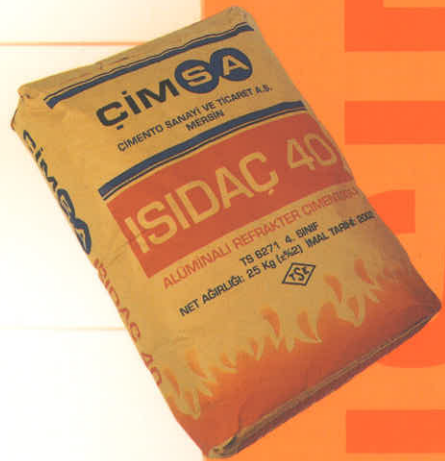




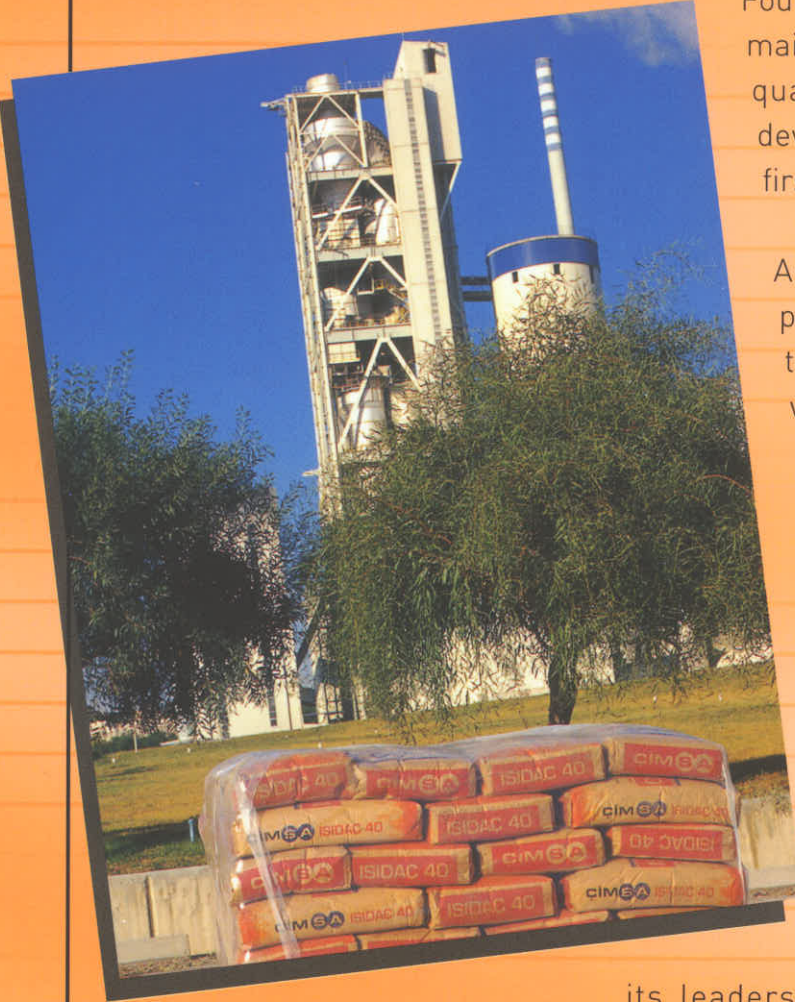
NO ONE CAN MATCH ITS STRENGTH



ISIDAC 40

HEAT RESISTANT CEMENT

ONCE AGAIN A LEADING MOVE FROM ÇİMSA



Founded in 1972 in Mersin, Çimsa maintains the production of high quality cement with the same devotion and enthusiasm of the first day.

As time passes by, with the progress in its experience and technological development and with its increasing product quality, Çimsa become one of the most important cement producers within the sector. Çimsa is today a well-known company throughout the world with its exports to the countries in the Middle East, America, North and West Africa, South and North Europe.

Known at the same time for its leadership, Çimsa lives up to its reputation by now introducing its new product designed to serve the needs of the construction and refractory industry.

ISIDAC 40 Heat Resistant Cement will significantly facilitate the tasks in the construction and refractor industry.

THE PROPERTIES OF THE MORTAR AND CONCRETE PRODUCED WITH ISIDAC 40

HIGH EARLY STRENGTH

- Early strength is much higher in comparison to Portland Cement.
- Compressive strength gained in 28 days with Portland Cement will be reached in 6 hours with ISIDAC 40.
- Form work can be removed after 5 hours. (21°C)

SETTING IN COLD WEATHER CONDITION

- Rapidly gains strength even at low temperatures.
- Resistant against freezing-thawing.
- Because of its high heat of hydration, concrete can be cast up to -10°C.

REFRACTORY PROPERTIES

- High resistance with regard to heat and fire.
- The refractoriness in cement is 1280°C.
- Resistance will be increased up to 1300°C with the use of proper aggregates.

DURABILITY AGAINST CORROSION

- Resistant against both sulphate containing water and sea water.
- Highly resistant even in acid environment caused by bacteriological activities (swamp water and sewage sludge).
- Resistant against waste water (industrial wastes) containing biological activity.
- Highly resistant in environments with weak acid (pH>4).

ABRASION RESISTANCE

- It shows high resistance in industrial structures that are subject to highly abrasive effect and are located in regions with heavy traffic.

ADJUSTABLE SETTING TIME

- The setting time will be adjusted depending on the increase in the amount of ISIDAC 40 when mixed with Portland Cement and it can be adjusted up to 5 minutes.

APPLICATION AREAS

CONSTRUCTION

- Runways in airports
- Bridges
- Dam spillways
- Highways and paved roads
- Mining industry
- Engineering applications for pipes and waste water
- Sewage systems
- Floor coverings with high resistance against abrasion
- Structures required to be in service in a short period
- Stairs
- Lintels and peripheral ties
- Collecting manholes



REFRACTORY INDUSTRY

- Kilns and furnaces
- Fireplaces
- Barbecues
- Industrial boilers

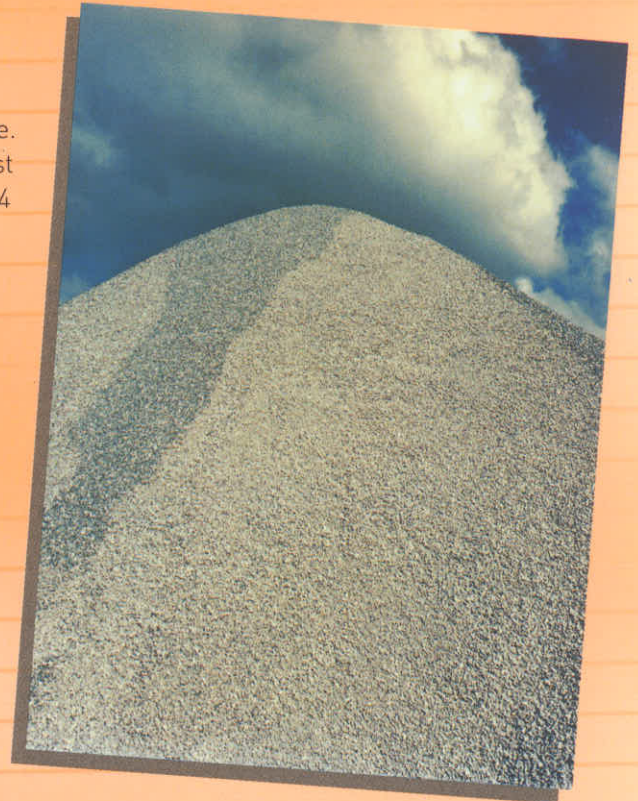
THE UTILIZATION BY MIXING WITH PORTLAND CEMENT

- Repairs
- Fixation tasks
- Preventing water leakage
- Supports for the door and windows clearances



PRECAUTIONS

- Tools and equipment must be clean and the water used must be drinkable.
- The water-cement ratio must be as low as possible during the preparation of the mixture. The water to be used for 25 kg ISIDAC 40 must be less than 10 litres (Water / cement ratio=0.4 at maximum).
- ISIDAC 40 dosage for 1 m³ of concrete must be at minimum 400 kg.
- There should be no soluble alkali in the aggregate to be used.
- The aggregate must be washed and there should be no particles smaller than 0.2 mm.
- The mortar and concrete produced with ISIDAC 40 must be kept wet during the entire hardening period.
- Water should be sprayed on the application area or curing must be carried out with wet sacks.
- The ratio of ISIDAC 40 to Portland Cement should not exceed 1 to 3 respectively in the mixture. Using more ISIDAC 40 lowers the setting time.



RECOMMENDATIONS

Keeping the environment warm ($> 20^{\circ}\text{C}$) accelerates the hardening of ISIDAC 40 and facilitates the evaporation of the hydration water.

In order to prevent this:

- The application surface must be moistened prior to using ISIDAC 40.
- Cold water must be used during the concrete production and the materials should not be exposed to direct sun light.
- Concrete production must be carried out early in the morning or late in the evening at times or places where it is hot.
- Attention must be paid to the concrete curing. High amount of heat liberated in a short period of time when ISIDAC 40 is mixed with water. Concrete production can be carried out up to -10°C as a result of this.
- When concrete is cast in cold weather, the fresh concrete must be protected against freezing. The elements must be protected with sacks etc. in order to prevent freezing.

HOW CAN THE MORTAR AND CONCRETE PRODUCED WITH ISIDAC 40 BE RESISTANT IN AGGRESSIVE AND CORROSIVE ENVIRONMENT?

- Siliceous aggregates must be used.
- The sand and aggregate granulometry must be suitable.
- Minimum amount of water must be used.
- The concrete must be compacted with a vibrator.

REFRACTORY MATERIALS

- The bricks must be wetted prior to the application in order to ensure that the water of ISIDAC 40 mortar will not be absorbed by the bricks.
- Refractory aggregates or chamotte must be used for the hottest parts of the fireplaces and barbecues.

ÇİMSA

ÇİMSA
ÇİMENTO SANAYİ VE TİCARET A.Ş.

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