

# FONDU CEMENT™ 100

ALUMINA CONCRETE TOPPING FOR SPECIAL APPLICATION

## DESCRIPTION

Fondu Cement™ 100 is made of special cement based on calcium aluminates instead of Portland Cement. Fondu Cement™ 100 will not release free lime during hydration whilst Portland Cement releases up to 30% free lime, so it has an excellent resistance to chemical attack, abrasion and wear.

## RECOMMENDED USES

- Ante Room, Air Lock, Cold Room, Freeze Room
- Floor Area of unloading hot steel
- Workshop, Maintenance shop
- Irrigation Water Gate structure topping
- Dam Spillways
- Chemical Warehouses
- Loading Decks
- Road and Bridge repairs

## MAIN PROPERTIES

- Resist low temperatures down to minus 40 °C
- Resist high temperatures up to 500 °C
- Withstand freeze thaw temperatures (-40 °C + 40 °C) in 8 hours
- Resist to abrasion, high water pressure, mechanical friction
- Resist to light chemicals (pH 4 to pH 12)
- High early strength, 240 KSC (cyl) in 6 hours
- Quick hydration, moisture content at 3 days is less than 5% by weight, can apply resin based coating i.e. paint, epoxy, polyurethane

## TECHNICAL PROPERTIES

|                       |             |           |
|-----------------------|-------------|-----------|
| *Compressive Strength |             |           |
| 6 hours               | 240         | KSC (cyl) |
| 24 hours              | 300         | KSC (cyl) |
| 3 days                | 350         | KSC (cyl) |
| Flexural Strength     | N/A         |           |
| Tensile Strength      | N/A         |           |
| Initial Setting Time  | 40 minutes  |           |
| Final Setting Time    | 192 minutes |           |
| Specific Gravity      | 2.4 kg/L    |           |
| *Abrasion Resistance  | N/A         |           |
| Heat of Hydration     |             |           |
| 6 hours               | 340 kJ/kg   |           |
| 24 hours              | 445 kJ/kg   |           |
| 5 days                | 445 kJ/kg   |           |

**COLOR** Natural Cement Gray

## SHORT SPECIFICATION

High Alumina 40 percent Fondu Cement™ 100 from France



## MIXING AND INSTALLATION

Temperature of room and substrate should be above 10 °C for application of Fondu concrete. Mix the following constituents with concrete mixer for 5 minutes.

- Fondu cement™ 100 50 kg (2 bags)
- Sand 98 kg
- Aggregates 3/4" 138 kg
- Water 18 Liters
- Concrete additive retarder 80 -150 cc
- Concrete additive foaming agent 50 cc
- Concrete additive superplasticizer 0.150 kg.

(Only if in working temperature is below 0 degree C) Pour the mix onto the floor surface and use power trowel to compact and smooth steel finish.

## TRAFFICABILITY

|          |  |
|----------|--|
| 24 hours | Light traffic  |
| 48 hours | Normal traffic, moisture content will be less 5% by weight and painting is possible. |

## AVERAGE CONSUMPTION

- 24 kg concrete mix per cm<sup>2</sup> or
- 1.81 m<sup>2</sup>/mix at 7 cm thick.

## PACKAGING

|                |
|----------------|
| 25 kg/bag      |
| 56 bags/pallet |

## CAUTION

- Never mix Fondu Cement™ 100 with portland cement, it will accelerate the setting time.
- Never add up water after the mixing process completed, control water cement ratio not exceeding 0.4

## STORAGE AND SHELF LIFE

1 year

## HEALTH & SAFETY

Material Safety Data Sheet (MSDS) available upon request.

*Technology for Engineers*