

Building a stronger future together

# **ULTRACEM 52.5N**



# **Technical Data Sheet**

QUALITY: ULTRACEM 52.5N complies with the chemical and physical requirements of EN 197-1 for class 52.5.

| Cement Type | Naming          | Clinker (%) | Limestone (%) | Gypsum (Calcium Sulphate<br>Hydrated) (%) |
|-------------|-----------------|-------------|---------------|---|
| CEM I 52.5N | Portland Cement | 95          | NA            | 5   |

#### Technical parameter CEM I 52.5N

#### Physical Properties:

| Property              | ULTRACEM<br>Average | EN 197-1<br>52.5N |
|-----------------------|---------------------|-------------------|
| Setting Time<br>(min) | 100                 | >45               |
| Soundness<br>(mm)     | 2                   | <=10              |

#### Chemical Properties:

| •                         |               |          |  |  |
|---------------------------|---------------|----------|--|--|
| Property                  | ULTRACEM52.5N | EN 197-1 |  |  |
|                           | Average %     | 52.5N %  |  |  |
| Sulphate Content<br>(SO3) | 2.89          | <=3.5    |  |  |
| Chloride Content<br>(Cl-) | 0.09          | <=0.1    |  |  |

### Mechanical Properties:

| Property                        | UTLRACEM 52.5N<br>Average MPA | EN 197-1<br>52.5N MPA |
|---------------------------------|-------------------------------|-----------------------|
| Compressive<br>Strength 2 days  | 30.0                          | >=20.0                |
| Compressive<br>Strength 28 days | 60.0                          | >=52.5                |

## Special features of concrete made with this cement:

- Very high early strength development (2 days +);
- Very strength at standard ages (7 days +);
- Selected range of uses with high performance even in moderate aggressive environments;
- · Fair workability.

#### **Recommended applications:**

- Reinforced concrete:
  - ✓ high strength classes, especially those in the range of C30/35 to C50/55;
  - ✓ rapid construction with quicker stripping of formwork;
  - ✓ structural precast elements that bear load;
- Road:
  - ✓ concrete surface layers;
  - ✓ Reinforced concrete, simple and especial concrete;
  - ✓ propose grout;
  - ✓ brickworks.

#### STRENGTH - THE IMPORTANCE OF "R":

- ✓ The "N" designation indicates that a 52.5N class will achieve a 2-day strength of greater than 20MPA according to EN 197-1 specification;
- ✓ The "N" designation indicates that a 52.5N class will exceed 52.5MPA after 28 days of strength development according to specification of EN 197-1.

#### **ORDERS:**

You can place your ULTRACEM 52.5N cement order via our Customer Service:

Tel: +258 87 100 1462 E-mail: sales@cdb.co.mz

#### **AVAILABILITY AND DELIVERY:**

- 2 ton euro pallet (100Wx120Lx13H) cm, consisting of 40 bags of 50Kg each covered with an industrial plastic wrapping (on request);
- Bulk, 30ton trucks self discharge.

#### PRECAUTION REGARDING THE USE:

- Avoid placing concrete under low temperatures;
- Provide adequate protection and cure according to correspondent standard;
- Follow the standard minimum cement content and maximum water/cement ratio.

#### NOT RECOMMENDED:

- Under aggressive environment (acidic environment with pH ≤ 4), strictly follow standard recommendations and technical information about the subject;
- Non-prestressed concrete.

#### **ENVIRONMENT AND SAFETY:**

- Before starting any job, make safety the first step in your planning;
- Use proper protective clothing, gloves and eye/ face protection equipments;
- The production of this cement represents a CO<sub>2</sub> emission reduction:
- For further information consult our Safety Data Sheet.

#### IMPORTANT NOTICE:

T.PR.LAB.045/R1

The information contained in this technical data sheet is for general guidance only and should not be relied upon in specific instances. Cement performance results quoted are indicative as cement performance can be heavily influenced be a wide range of factors beyond our control.

CONTACT US: For further information on ULTRACEM 52.5N | Tel: +258 87 100 1462 | E-mail: info@cdb.co.mz | Skype: cimentosdabeira | Visit our website: www.cdb.co.mz

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