



### 1 GENERAL INFORMATION

**Isidaç40** is a calcium aluminate cement product which is designed by Çimsa Research and Application Center.

Isidaç40 offers various advantages to building chemicals applications to such applications as;

- High early and final strength,
- Adjustable setting time,
- Thermal resistance up to 1300 °C,
- High abrasion resistance.

### 2 APPLICATION AREAS

**Isidaç40**'s some application areas are;

- Building chemicals applications,
- Refractory applications,
- Pipe coating,
- Mining applications.

### 3 PRODUCTION

Çimsa Aluminates products are produced in L-shaped kilns by fused method with the special cooling system. After cooling, clinker is ground in ball mills and packaging is done.

### 4 PHASE COMPOSITION

**Major Mineral Phase** : CA

**Minor Mineral Phases** :  $C_{12}A_7, C_4AF$

### 5 CHEMICAL COMPOSITION

Al <sub>2</sub> O <sub>3</sub> (%)	CaO (%)	SiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)
≥ 38.0	≤ 38.8	≤ 5.0	≤ 19.0

TiO <sub>2</sub> (%)	MgO (%)	SO <sub>3</sub> (%)	Na <sub>2</sub> Eq Alkali (%)
≤ 3.0	≤ 1.0	≤ 0.2	≤ 0.3

### 6 PHYSICAL AND MECHANICAL PROPERTIES

Initial Set (min)	≥ 180	EN 196-3
Final Set (min)	≤ 330	EN 196-3
Specific Gravity (g/cm <sup>3</sup> )	≤ 3.3	EN 196-6
Compressive Strength (MPa)	6 hr ≥ 35.0 24 hr ≥ 60.0	EN 196-1
Residue at 45 microns (%)	≤ 10	EN 196-6
Residue at 90 microns (%)	≤ 2.0	EN 196-6
Blaine (cm <sup>2</sup> /g)	≥ 3000	EN 196-6

### 7 QUALITY CONTROL

Çimsa Aluminates products are produced according to EN 14647 standard. Production processes are certified according to EN ISO 9001, EN ISO 45001 and EN ISO 14001.

### 8 SAFETY INSTRUCTIONS

Standard safety requirements for regular cements have to be followed. For further information, please refer to the Safety Data Sheet of **Isidaç40**.

### 9 STORAGE CONDITIONS AND SHELF LIFE

**Isidaç40** must be stored in dry and sheltered conditions. In this case, it will retain its properties for a minimum of 6 months. No more than 10 bags or 2 pallets should be stacked on top of each other. Based on previous experiences, its properties are preserved for more than 12 months when stored under proper conditions. The product must be stored in its original package. When it is not in use, the mouth of the package must be tightly closed.