

1 GENERAL INFORMATION

Resisto50 is a calcium aluminate cement product which is specifically designed by Çimsa Research and Application Center for fulfilling the durability and time dependent needs of the producers. The main application area of Resisto50 is the pipe lining due to its alumina content.

Resisto50 offers various advantages to producers such as;

- High alumina content,
- Maximum water retention,
- High abrasion resistance,
- Durability against biological corrosion,
- Sulfate resistance,
- Acid resistance up to pH 3,
- Easy application in winter conditions even under the freezing point.

2 APPLICATION AREAS

Application areas of **Resisto50**:

- Pipe coating,
- Concrete road repair,
- Field concrete applications,
- Geothermal applications,
- Special applications resistant to chemical abrasion,
- 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 Phases : CA

Minor Mineral Phases : C₁₂A₇, C₂AS

5 CHEMICAL COMPOSITION

Al ₂ O ₃ (%)	CaO (%)	SiO ₂ (%)	Fe ₂ O ₃ (%)
≥ 49.0	≤ 39.5	≤ 6.0	≤ 2.7

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

6 PHYSICAL AND MECHANICAL PROPERTIES

Initial Set (min)	≥ 280	EN 196-3
Final Set (min)	≥ 310	EN 196-3
Specific Gravity (g/cm ³)	≤ 3.03	EN 196-6
Compressive Strength (MPa)	6 hr ≥ 25 24 hr ≥ 75	EN 196-1
Residue at 45 microns (%)	≤ 0.5	EN 196-6
Residue at 90 microns (%)	≤ 7.0	EN 196-6
Blaine (cm ² /g)	≥ 3.500	EN 196-6

7 QUALITY CONTROL

Çimsa Aluminates products are produced according to TS 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 **Resisto50**.

9 STORAGE CONDITIONS AND SHELF LIFE

Resisto50 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. The product must be stored in its original package. When it is not in use, the mouth of the package must be tightly closed.