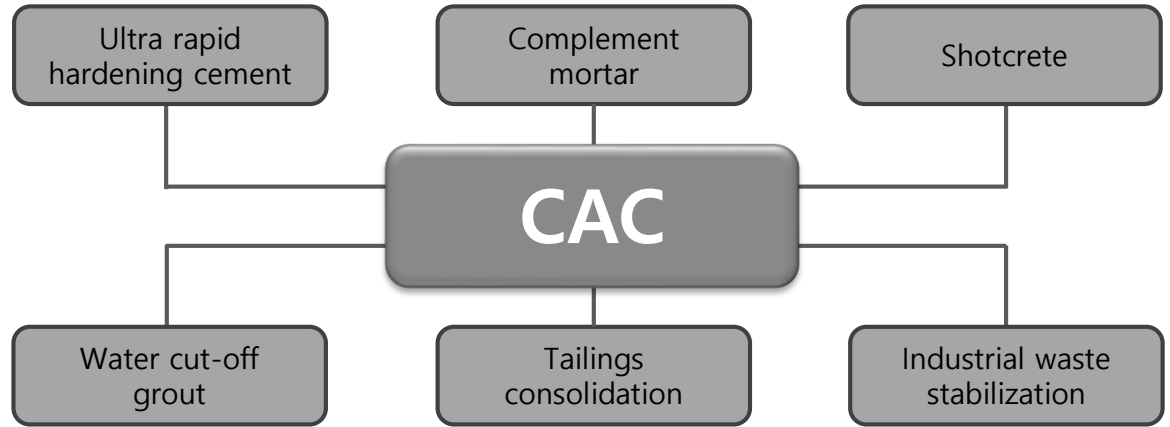


# CAC

## Summary

CAC is a glassy material ground to 6,000 cm<sup>2</sup>/g whose primary reactive ingredient is amorphous C<sub>12</sub>A<sub>7</sub>, giving it quick setting characteristics. CAC can be used to formulate various products and to meet various application needs, it is especially suited to the production of rapid hardening cementitious materials.

## Applications

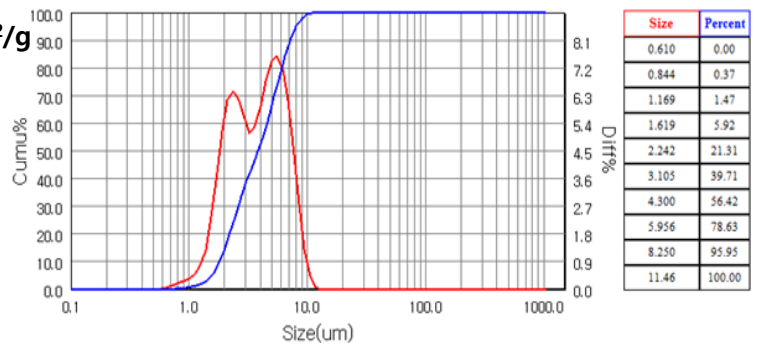


## Physical Characteristic

- Density : 2.95 g/cm<sup>3</sup>
- Specific surface area: 6,545 cm<sup>2</sup>/g
- Morphology



### • Size distribution



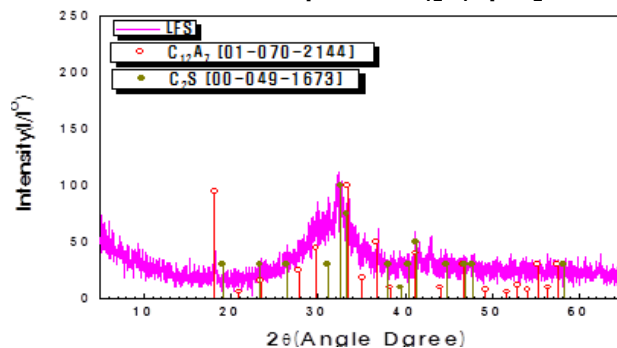
## Chemical Characteristic

### • XRF

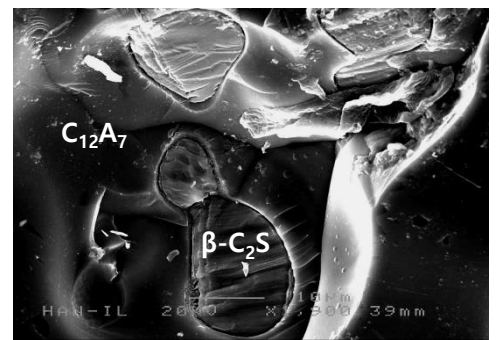
CaO	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	SO <sub>3</sub>	Na <sub>2</sub> O	K <sub>2</sub> O	LOI
43.0	26.6	18.4	1.32	6.41	2.21	0.50	0.16	-2.74

(unit : %)

### • XRD : main component C<sub>12</sub>A<sub>7</sub>, β-C<sub>2</sub>S



### • SEM(x 1,900)



### • Hydration of CAC

#### Machanism

Hydrogarnet :  
generated by hydration  
 $C_{12}A_7 + 33 H_2O \rightarrow 4C_3AH_6 + 6Al(OH)_3$

