

**Study on 32.5N/mm² Grade Cement with Function of
Self-protection against the Neutralization Using γ -C₂S**

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It was assumed that 32.5N/mm² grade cement with function of self-protection against the neutralization could be developed by γ -C₂S with no hydration as the filler. γ -C₂S allows the densification of hardened cement material by carbonation to make penetration of CO₂ into hardened cement material difficult then. Therefore, γ -C₂S lead to suppressing the neutralization. γ -C₂S can be considered a kind of intelligent material that senses the change of environment and performs a functional role. It was also found that hardened cement material resistive against both the neutralization and the penetration of Cl⁻ could be obtained by using a combination of γ -C₂S and BB.