Linear Elastic Region: The stress–strain curve initially exhibits a linear relationship between stress and strain at low levels of stress.Post–Ultimate Behavior: After reaching its ultimate strength, the stress–strain curve may exhibit various behaviors depending on factors such as mix design, fiber reinforcement, and curing conditions.Strain Hardening: UHPC is known for its strain hardening behavior, where the material continues to deform plastically beyond the yield point while increasing in strength.This results in a rising stress–strain curve, indicating that the material becomes tougher and more resistant to deformation as strain increases.Ultimate Strength: UHPC typically exhibits an ultimate strength significantly higher than that of conventional concrete.

Summarized by © lakhasly.com