

Aggregates

Civil Engineering

Three quarters of the volume, not filler.

Every property here changes the water the mix demands.

Property	Why it matters
Grading	Packing, workability, cement demand
Shape and texture	Bond, and the water needed
Maximum size	Cover, bar spacing, pumpability
Fines and clay content	More water, less strength
Absorption	Shifts the effective w/c ratio
Alkali reactivity	Long-term expansion and cracking

Educational reference. Aggregate compliance is tested to the governing standard and stated in the specification.