3.1.2 Cement according to ASTM Standard

According to ASTM regulations cement is described as:

- Portland Cement: ASTM C150
- Blended Cement: ASTM C595

**ASTM C150 Standard Specification for Portland Cement** covers the following cement types:

- **Type I**: For use when the special properties specified for any other type are not required
- **Type IA**: Air-entraining cement for the same uses as Type I, where air-entrainment is desired
- **Type II**: For general use, more especially when moderate sulfate resistance is desired
- **Type IIA**: Air-entraining cement for the same uses as Type II, where air-entrainment is desired
- **Type II(MH)**: For general use, more especially when moderate heat of hydration and moderate sulfate resistance are desired
- **Type II(MH)A**: Air-entraining cement for the same uses as Type II(MH), where air-entrainment is desired
- **Type III**: For use when high early strength is desired
- **Type IIIA**: Air-entraining cement for the same use as Type III, where air-entrainment is desired
- **Type IV**: For use when a low heat of hydration is desired
- **Type V**: For use when high sulfate resistance is desired

**ASTM C 595 Standard Specification for Blended Hydraulic Cement** covers blended hydraulic cements for both general and special applications, using slag or pozzolan, or both, with Portland cement or Portland cement clinker or slag with lime.

These cements are classified as following:

- **Type IS**: Portland blast-furnace slag cement
- **Type IP**: Portland-pozzolan cement
- **Type IT**: Ternary blended cement

They can also be described according to air-entraining, moderate sulfate resistance, moderate heat of hydration, high sulfate resistance, or low heat of hydration properties.