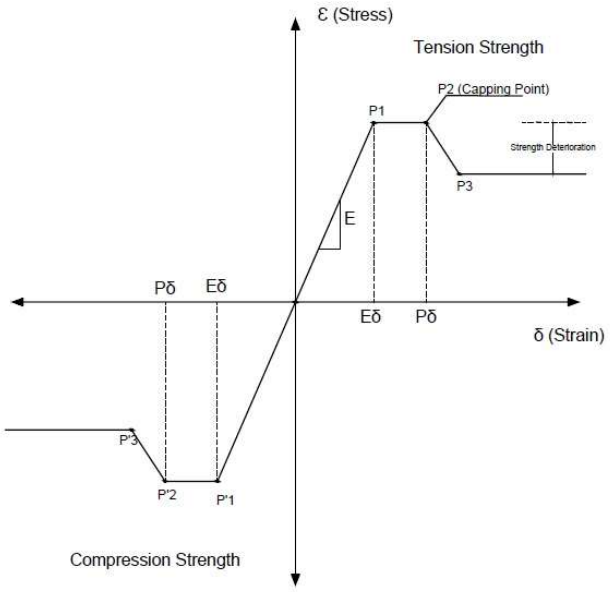
Hysteretic Material

Is used to construct a uniaxial bilinear hysteretic material object with pinching of force and deformation, damage due to ductility and energy, and degraded unloading stiffness based on ductility.



To Describe Material behaviour:

- P1: represents the elastic limit of material.
- P2: is the capping point (the plastic strength of material).
- P3: explains the change in the strength after the plastic point (deterioration or hardening).
- If the strength at p3 is less than the strength at p2, it is assumed the envelope of the hysteretic material after p3 is a flat line with a constant stress (or force) equal to p3 strength.
- If the strength at p3 is more than the strength at p2, it is assumed the envelope of the hysteretic material after p3 follows the slope defined by 2nd and 3rd point of the envelope.