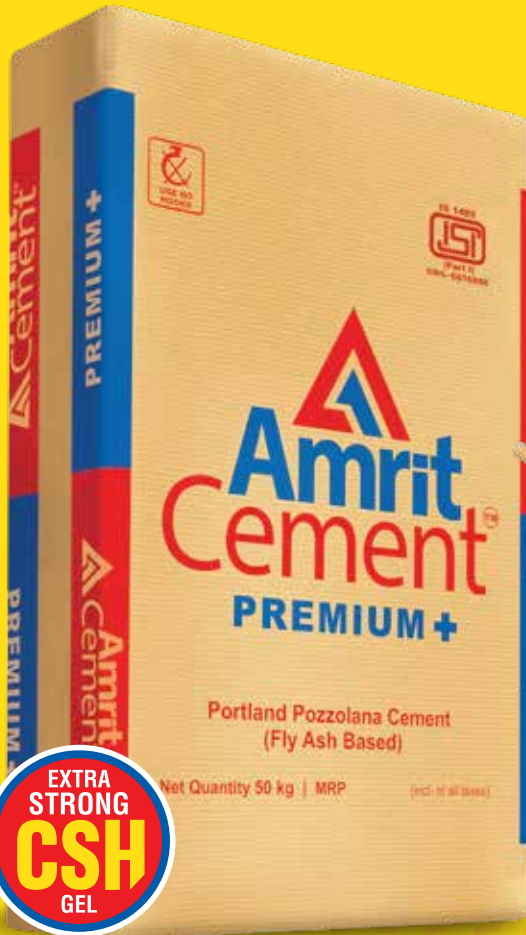
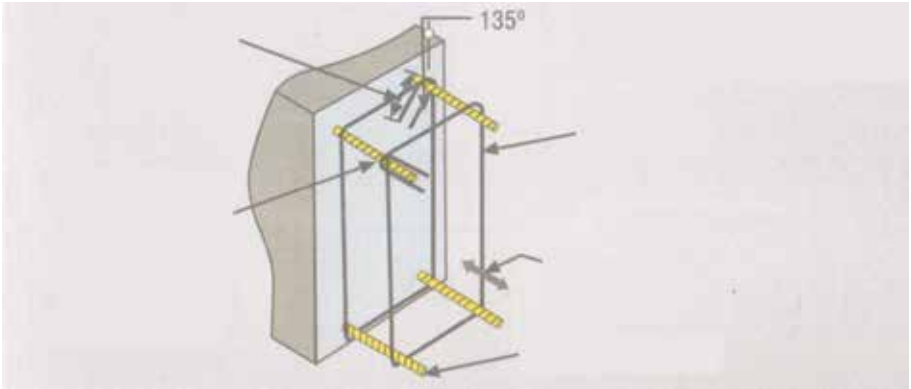


DUCTILITY IN REINFORCED CONCRETE CONSTRUCTIONS



Ductility in Reinforced Concrete Constructions

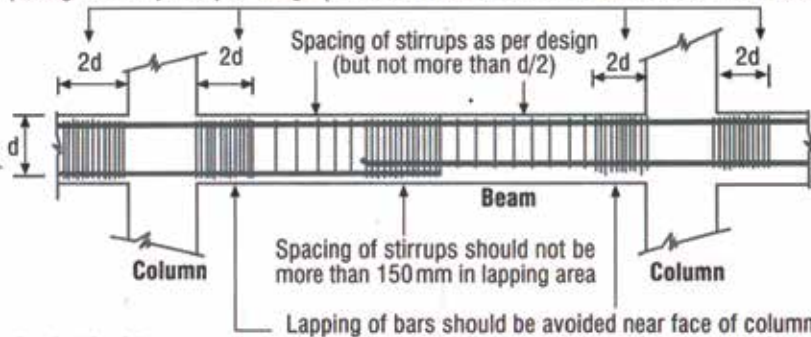
"Ductility" in Reinforced Concrete Construction is of prime importance from earthquake resistant design point of view and it is imparted by the reinforcing steel only. The compressive strength as well as straining capacity can be increased by using closely spaced lateral stirrup ties and it also improves the earthquake resistance of reinforced concrete columns and beams.



The diameter of stirrup must be at least 6 mm and for beams of length 5 m or more, the diameter should be at least 8 mm. Both ends of vertical stirrups should be bent into a 135 degree hook and extended sufficiently (about 10 times the diameter of bar) beyond this hook. For arrangement, maximum spacing of stirrups and for lapping please follow the diagram.

Arrangement of Stirrups Spacing

Spacing of stirrups as per design (but not more than $d/4$ and 8 times beam bar diameter)



While purchasing the reinforcement bars make sure that they are rust free, since rusty bars tend to expand and cause cracks in your building. On site, to prevent the bars from rust they should be coated with cement paste slurry.