

BARE ALL ALUMINIUM ALLOY CONDUCTORS (BARE AAAC)

Aluminium alloy (AAAC) contains a small percentage (about 0.60%) of silicon and magnesium elements. It provides several benefits for overhead lines.

- (i) Strength - About twice that of aluminium 1350 (EC)
- (ii) Weight - 20% (approx.) lighter than ACSR conductor of equal diameter.
- (iii) Corrosion resistance - It has a high resistance to atmospheric corrosion which is suitable for coastal and industrial areas.
- (iv) Surface hardness - AAAC's surface is significantly harder than aluminium 1350. It is less liable to damage during installation which is an important advantage of EHV transmission lines where corona and radio interference is a major consideration.
- (v) Termination - Much simpler jointing accessories required compared to ACSR.
- (vi) AC Resistance - AAAC is a non-magnetic material. It does not exhibit the magnetic core losses found in ACSR conductor.

