

STER – ACSR™/ AS OR ACSR™ / AW

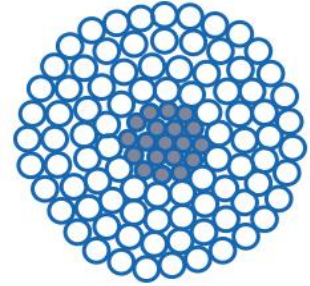
Aluminium Conductors, Aluminium Clad Steel Reinforced (ACSR/AS or ACSR/AW) are concentrically stranded conductors with one more layer of hard drawn 1350-H19 aluminium wires on Aluminium Clad steel wire core. The core can be single wire or stranded depending on the size.

APPLICATION

High voltage overhead transmission & distribution lines and coastal regions.

ADVANTAGES

A higher UTS can be achieved by increasing core and higher current carrying capacity by increasing Al content. The mechanical properties of ACSR/AS conductors are similar to ACSR conductors, but they offer improved ampacity and resistance to corrosion because of the presence of aluminium clad steel wires in the core. These conductors are better replacement for ACSR conductors where corrosive conditions exist.



MANUFACTURING CAPABILITY

SR.NO	DESCRIPTION	RANGE	
01	Conductor Area	10.6mm ² to 1393mm ²	0.0164 in ² to 2.1592 in ²
02	Conductor construction	6Al / 1 ACS to 84Al /19 ACS	
03	Conductivity of Aluminium	61 %	
04	Conductivity of ACS	20.3 %	

PHYSICAL PROPERTIES

At a temperature of 20°C (68°F), the density of hard-drawn aluminium has been taken as 2.703 g/cm³ (168.74 lb/cf) and aluminium clad steel wires 6.59 g/cm³ (411.40 lb/cf)

SR. NO.	CONDUCTOR CONSTRUCTION	MODULUS OF ELASTICITY*		LINEAR COEFFICIENT*	
		MPA	KSI	/°C	/°F
01	6Al / 1 ACS	74000	10733	19.3 X 10 ⁻⁶	10.7 X 10 ⁻⁶
02	26Al / 7 ACS	71000	10298	19.1 X 10 ⁻⁶	10.6 X 10 ⁻⁶
03	30Al /7 ACS	74000	10733	18.0 X 10 ⁻⁶	10.0 X 10 ⁻⁶
04	54Al /7 ACS	65000	9427	19.5 X 10 ⁻⁶	10.8 X 10 ⁻⁶

SR. NO.	DESCRIPTION	RANGE	
01	Permissible Temp in continuous operation	75°C	167°F
02	Temp in a short circuit (duration up to 5 s)	200°C	392°F

Note: The Catalogue conductor Parameter are informative and can be customized as per Project Requirements.

STANDARD

IEC, BS, ASTM, CAN-CSA, DIN, IS, AS and relevant national and international standards.

Non-Specular (NS) Dull Finish Conductor can be available on special requirement.

Disclaimer:

- * Parameters mentioned in the document are indicative and can vary subject to different standards*
- * Customizations are available on select products. Please indicate your interest by reaching out to the sales team*

Contacts us for more details:

Saurabh Mahajan, VP Exports & Sales (saurabh.mahajan1@sterlite.com)

Amit Charan, VP, Sales and BD (amit.charan@sterlite.com)