

In 2014, **SENAAT** and **DUCAB** announced a joint-venture, Ducab Aluminium Company (DAC), to develop a 50,000tpa aluminum rod mill, of which 16,000tpa will be converted on-site into finished overhead conductors.

Located in KIZAD,
Abu Dhabi, the plant will
manufacture Electrical
Conductive (EC) grade
and aluminum alloy rods,
wires, and bare overhead
conductors through
environmentally friendly
processes, using liquid
aluminum supplied from
the EMAL smelter in
Taweelah.

The world class
DAC plant will offer best
in class products based
on a strong understanding
of customer needs,
creating custom-built
solutions using a
highly-skilled and
well-trained
workforce.

INTRODUCTION:

Ducab Aluminium Company (DAC) is a joint venture between Senaat and its portfolio company Ducab.

DAC, which will manufacture aluminium / aluminium alloy rods, wires, and bare overhead conductors, aims to capitalize on the growing market demand in the MENA region and expand globally.

Environment-friendly processes will be employed within the mill, and liquid aluminium will be supplied from the EMAL smelter in KIZAD. Abu Dhabi.

DAC products are one of the best in quality with technically advanced processes. The Aluminium rods are manufactured with continuous casting and rolling.

The EC rods manufactured are with 99.7% minimum purity and conform the requirements of ASTM B233-97.



ALUMINIUM EC RODS

CHEMICAL - PROPERTIES:

Element %	DAC specification		ASTM B233-97	
	Min	Max	Min	MAx
Aluminum (Al)	99.7		99.5	
Silicon(Si)		0.10		0.10
Iron(Fe)		0.20		0.40
Zinc(Zn)		0.02		0.05
Gallium(Ga)		0.02		0.03
Vanadium(V) + Titanium (Ti)		0.02		0.02
Copper (Cu)		0.05		0.05
Manganese (Mn)		0.01		0.01
Chromium (Cr)		0.01		0.01
Boron (B)		0.05		0.05
Arsenic (As)		0.009		
Heavy elements (Cd+Hg+Pb)		0.0095		
Other elements each (OE)		0.03		0.03
Other elements total		0.10		0.1



MECHANICAL - PROPERTIES:

Temper	Tensile limits (MPa.)	Elongation % min (250mm Gauge length)
1350/1370-0	59-97	25
1350/1370-H12	83-117	20
1350/1370-H14	103 - 138	15
1350/1370-H16	117- 152	6

ELECTRICAL - PROPERTIES:

Temper	Resistivity Ωmm²/m, max	Equivalent volume of Conductivity %IACS (min)
1350/1370-0	0.027899	61.8
1350/1370-H12	0.028035	61.5
1350/1370-H14	0.028080	61.4
1350/1370-H16	0.028126	61.3

ALUMINIUM EC RODS

PACKAGING DETAILS:

Outer diameter of Coil	1400 to 1770 mm
Inner diameter of Coil	560 & 780 mm
Height of Coil	850 mm
Weight of coil	2000kg to 3400kg (±10%)



APPLICATION:

The Aluminium EC rods are used for:

- Cables
- Overhead conductors
 - > AAC
 - > ACSR
 - > AAAC
 - > ACSR/AW
 - > Wires





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