



Supplier of Welding Alloys

Aluminum Coated Electrodes

Oxford Alloy® A105

SPECIFICATIONS

AWS 5.3
DIN 1732: EL-AiSi5

CLASSIFICATIONS

AWS E4043
UNS A94043

DESCRIPTION / APPLICATION

Oxford Alloy A105 aluminum electrode with 5% Si is for welding and repairing aluminum or aluminum alloys (AlSi, AlSiMg, AlZnMg, AlCuSiMn, etc). For joining between aluminum and aluminum alloys, as well as aluminum castings. It can be used on engine blocks, cylinder heads, tanks, containers, frames, lorry tipper...

Work pieces must be clean before welding; Preheat material more than 6mm in thickness to 150-250°C in order to prevent porosity, weld with short arc and guide the electrode at 90° to the work piece to be welded. Fast travel speed is preferred.

Note: Alloy A105 electrodes are very sensitive to humidity pick-up; keep the opened container in dry place. In case of humidity pick-up, dry the electrodes 3H/100°C.

AWS Chemical Composition					
Si	Mn	Fe	Al		
5.0	0.50 max	0.5 max	Rem.		

TYPICAL MECHANICAL PROPERTIES

Tensile strength: 11,600 psi 80 MPa

Yield strength: 18,850 psi 130 MPa

Elongation: >15%

Typical Welding Parameters			
Process	Diameter	Volt	Amperage
SMAW	3/32 (2.4mm)	21-25	50-70
SMAW	1/8 (3.2mm)	21-25	80-100
SMAW	5/32 (4.0mm)	21-26	110-130



Data contained in this publication are typical of the products and properties described, but are not suitable for specifications. Certified Material Test Certificates (CMTR) and Material Safety Data Sheets (MSDS) are available at www.oxfordalloys.com.

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