



Welding Consumable: Approval Certificate

Office: **Mumbai-Port**

Date: **22 April 2016**

This Certificate is issued to **Senor Metals Pvt. Ltd.**, to certify that the undernoted welding consumable is recommended for entry in the supplementary list of certified welding consumable in accordance with AWS A5.10/A5.10M, specification of the year 2012. This certificate is issued on the basis of satisfactory test results on the test coupons prepared on 1 March 2016 and subsequently tested on 16 March 2016. Welding consumable is manufactured by Senor Metals Pvt. Ltd, Jamnagar, India

Description:

Consumable name : ER 4047
Size : 1.20 mm
SFA Classification : AWS A5.10 ER 4047

Results of test

	1.20mm
0.2% Proof stress	Not Required
UTS	Not Required
% Elongation	Not Required
Impact at -50deg C	Not Required
Chemical	Acceptable
Radiography	Not Required
Fillet(H,V, OH)	Not Required

Chemical Analysis- Size: 1.20mm

	Ni	Cu	Sn	Zn	Pb	Fe	Be
	%	%	%	%	%	%	%
Range	Not specified	0.30 max	Not specified	0.10 max	Not specified	0.8max	0.0003 max
Result	<0.010	<0.010	<0.010	<0.010	<0.010	0.19	0.0001

	Ti	Mg	Cr	Si	Mn	other	Al
	%	%	%	%	%	%	%
Range	Not specified	0.10max	Not specified	11.0-13.0	0.05max	0.15 max	Remaining
Result	0.039	0.018	<0.010	11.52	<0.010	<0.010	Remaining

Certificate is valid until 15 March 2017.

Mumbai Port Office
Lloyd's Register Asia
Manoj Kumar
Surveyor to Lloyd's Register Asia

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