Welding Consumable : Statement of Fact

Project: **Supplementary List of Welding Consumables**

Client: **Ador Welding Limited, Silvasa plant, India**

Office: **Mumbai**

Client's Order Number: **---**

Date: **02 June 2023**

Order Status: **Complete**

Inspection Dates

First: **04 April 2023**

Final: **02 June 2023**

This statement is issued to **Ador Welding Limited, Silvasa plant, India to certify that the undernoted welding consumable is recommended for entry in the supplementary list of certified welding consumables in accordance with ASME Section II Part C, SFA 5.1, E7018-1 specification of the year 2021. This statement is issued on the basis of satisfactory test results on the test coupons prepared on 04/04/203 and subsequently tested on 02/06/2023.**
Welding consumables is manufactured by Ador Welding Limited, Silvasa plant, India.

Description:-

Consumable Name : TENALLOY Z PLUS
Size : 4.0 mm and 5.0 mm
SFA Classification : SFA / AWS 5.1 E 7018-1 H4R

Result of the Test :

Size	4.0 x 450 mm	5.0 X 450 mm
0.2%Proof Stress (MPa) (Min.: 400MPa)	515	519
UTS (MPa) (Min.: 490MPa)	589	591
% Elongation (Min. 22%)	27	27
Hydrogen test	Acceptable	Acceptable
Chemical	Acceptable	Acceptable
Radiography	Acceptable	Acceptable
Fillet (H,V,OH)	Acceptable	Acceptable
Charpy V notch Impact test at -45 Deg C. Acceptable value: 27J average and 20J individual		
1	72*	72*
2	68	60
3	68	54
4	64	64
5	62*	50*
Average value (J)	67	59

Note: ' * ' - Indicates highest and lowest discarded values.

Diffusible Hydrogen Test:

	Size	Actual Result (1)	Actual Result (2)	Actual Result (3)	Average	Max	
Millilitres per 100 grams of Weld Metal	4.0 mm	3.674	3.654	3.741	3.690	4	
Millilitres per 100grams of Weld Metal	5.0 mm	3.792	3.892	3.837	3.840	4	

Moisture Test:

	Size	Actual Result	Max
Moisture (% by Weight)	4.0 mm	0.175 %	0.3 %
Moisture (% by Weight)	5.0 mm	0.192 %	0.3 %

Chemical Analysis – Size 4.0 X 450 mm

	% C	% Cr	% Ni	% Mo	%Mn	% Si	% P	% S	%V	% Mn+Cr+Mo+V+Ni
Range	0.15 Max	0.20 Max	0.30 Max	0.30 Max	1.60 Max	0.75 Max	0.035 Max	0.035 Max	0.08 Max	1.74 Max
Result	0.079	0.022	0.009	0.001	1.39	0.27	0.028	0.010	0.008	1.43

Chemical Analysis – Size 5 X 450 mm

	% C	% Cr	% Ni	% Mo	% Mn	% Si	% P	% S	%V	%Mn+Cr+Mo+V+Ni
Range	0.15 Max	0.20 Max	0.30 Max	0.30 Max	1.60 Max	0.75 Max	0.035 Max	0.035 Max	0.08 Max	1.74 Max
Result	0.078	0.022	0.010	0.001	1.41	0.29	0.027	0.009	0.007	1.45

Refer Radiography Report No: Global-013, results found acceptable.
For diffusible Hydrogen AM23/01975-2, dated 30/05/2023 & AM23/01975-4, dated 30/05/2023, Moisture Test report AM23/01975-2, dated 30/05/2023 & AM23/01975-4, dated 30/05/2023.
The works of above manufacturer were inspected at the location stated and found in satisfactory order. The process of manufacture including supervision, quality control and record keeping were of adequate standard and storage condition and facilities were found to be satisfactory as well.

Statement is Valid until 31 March 2024

Manish Trivedi
Mumbai Office
Lloyd's Register Marine and Offshore India LLP
LR031.2022

Manish Trivedi
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