



# 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 04/04/2023 and subsequently tested on 02/06/2023.

Welding consumables is manufactured by Ador Welding Limited, Silvasa plant, India.

## Description:-

Consumable Name : TENALLOY S PLUS  
Size : 4.0 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)  | 472          | 484          |
| UTS (MPa) (Min.: 490MPa)   | 558          | 569          |
| % Elongation (Min. 22%)  | 29           | 26           |
| Hydrogen test  | Acceptable   | Acceptable   |
| Chemical   | Acceptable   | Acceptable   |
| Radiography  | Acceptable   | Acceptable   |
| Fillet (H,V,OH)  | Not Required | Not Required |
| Charpy V notch Impact test at -45Deg C. Acceptable value: 27J average and 20J individual |              |              |
| 1  | 98*          | 92*          |
| 2  | 78           | 82           |
| 3  | 68           | 54           |
| 4  | 58           | 32           |
| 5  | 66*          | 70*          |
| Average value (J)  | 85           | 69           |

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

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**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 | 3.744             | 3.658             | 3.718             | 3.706   | 4   |  |
| Millilitres per 100grams of Weld Metal  | 5.0 mm | 3.811             | 3.833             | 3.929             | 3.858   | 4   |  |

**Moisture Test:**

|                        | Size   | Actual Result | Max   |
|------------------------|--------|---------------|-------|
| Moisture (% by Weight) | 4.0 mm | 0.161 %       | 0.3 % |
| Moisture (% by Weight) | 5.0 mm | 0.183 %       | 0.3 % |

**Chemical Analysis – Size 4.0 X 450 mm**

|        | % C   | % Cr  | % Ni  | % Mo  | % Mn | % Si | % P   | % S   | % Cu    | % V   | % Mn+Cr+Mo+V+Ni |
|--------|-------|-------|-------|-------|------|------|-------|-------|---------|-------|-----------------|
| Range  | 0.15  | 0.20  | 0.30  | 0.30  | 1.60 | 0.75 | 0.035 | 0.035 | 0.50    | 0.08  | 1.74            |
|        | Max   | Max   | Max   | Max   | Max  | Max  | Max   | Max   | Max     | Max   | Max             |
| Result | 0.074 | 0.039 | 0.013 | 0.001 | 1.37 | 0.31 | 0.019 | 0.012 | < 0.023 | 0.008 | 1.43            |

**Chemical Analysis – Size 3.15 X 1000 mm**

|        | % C   | % Cr  | % Ni  | % Mo  | % Mn | % Si | % P   | % S   | % Cu    | % V   | Mn+Cr+Mo+V+Ni % |
|--------|-------|-------|-------|-------|------|------|-------|-------|---------|-------|-----------------|
| Range  | 0.15  | 0.20  | 0.30  | 0.30  | 1.60 | 0.75 | 0.035 | 0.035 | 0.50    | 0.08  | 1.74            |
|        | Max   | Max   | Max   | Max   | Max  | Max  | Max   | Max   | Max     | Max   | Max             |
| Result | 0.072 | 0.039 | 0.013 | 0.001 | 1.37 | 0.30 | 0.019 | 0.010 | < 0.023 | 0.008 | 1.43            |

Refer Radiography Report No. Global-013, results found acceptable.

For diffusible Hydrogen AM23/01974-2, dated 29/05/2023 & AM23/01974-4, dated 29/05/2023, Moisture Test report AM23/01974-2, dated 29/05/2023 & AM23/01974-4, dated 29/05/2023.

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**

  
  
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Manish Trivedi for Self and Vikram Puront

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