



BHARATH HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014
WELDING TECHNOLOGY CENTRE

Doc. Number:

Revision:

WCPI - 407

02

Date: 18/12/1992

Welding Consumable Purchase Instruction

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PURCHASE INSTRUCTION FOR ARC WELDING FLUX FOR STAINLESS STEEL OVERLAYS.

1.0 SCOPE:

1.1 The flux supplied shall meet the following requirements. The quantities shall be supplied as specified in the PURCHASE ORDER.

2.0 CHEMICAL COMPOSITIONS:

2.1 Specified chemical composition of the flux shall be as follows:

SiO₂ : 6.00-10.00
MnO : 35.00 Max
CaO : 10.00-15.00
Al₂O₃ : 45.00 Max.
CaF₂ : 25.00 Max.

3.0 USABILITY:

3.1 The flux is used for overlays on Valve seats in combination with ASW ER 410 and ER 430 wires.

3.2 The Basicity Index of the flux shall be 0.8 - 1.2.

3.3 The flux shall conform to the following mesh size 12 x 65 after Tyler.

3.4 The flux shall have very good slag detachability even in the rd hot condition.

3.5 The flux shall have very quick freezing characteristic to enable continuous welding of 8 passes in two layers.

3.6 The flux shall be dry and have very low sensitivity to moisture and contamination.

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4.0 PACKING AND STORAGE:

- 4.1 The flux shall be packed in humidity resisting manifold with plastic lining and airtight sealing. The packing shall be suitable to with stand transportation, handling and storage under normal condition.
- 4.2 The flux in the originals unopened package shall withstand storage under normal conditions for at least 12 month without affecting its welding characteristics or the weld properties.
- 4.3 Every bag shall contain the maximum quantity of 50 kgs.
- 4.4 The entire lot of each dispatch shall be made from one batch of flux.

5.0 MARKING:

- 5.1 The following information shall be legibly printed on the out side of each bag.
- a) Brand Name
 - b) Mesh size
 - c) batch No & date of manufacture
 - d) Net weight
- 5.2 A tag/label in the above information shall also be placed inside each bag.

6.0 TEST CERTIFICATE:

- 6.1 Individual test certificates shall be issued for every batch of flux. A batch is defined as the quantity produced from the same combination of raw materials under one production schedule.
- 6.2 The Test certificate shall contain chemical analysis. Basicity Index and mesh size for every batch of flux.
- 6.3 Three copies of test certificate shall be mailed for each batch of flux.
- 6.4 Prior approval shall be obtained from BHEL for any deviation of this PURCHASE INSTRUCTUION.

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