Storage and handling of seamless flux cored wires.

NST and Nittetsu seamless flux and metal cored wires are manufactured in a manner which provides wires with no open seams, preventing moisture from penetrating the wire.

The NST seamless wires provides the customer with a product that has a guaranteed low hydrogen control (the only point of ingress for moisture is at the start and end of the wire).

The seamless manufacturing process has the additional benefit of enabling the wire to be copper coated, this provides extended shelf life due to rust prevention, prevents down time with liner cleaning and provides excellent electrical pick up from the welding tip (copper to copper).

**Method of storage**

To ensure the wire is used at its optimum the following guidelines should be observed:
- Welding materials shall be stored inside, away from rain, snow and dew.
- Welding materials should be stored off the floor, preferably on wooden pallets which enable air circulation to take place (10cm off the floor, and 10cm off the wall).
- It is desirable to store materials places where the temperature is below 30°C and the relative humidity is less than 80%.
- Environments where rusting tends to occur due to sea breeze, SO2 gas etc., should be avoided.
- A plan should be devised to use materials on a first in, first out basis.
- The packing shipped from the manufacturer must be kept as it is until just before use.

**Period of storage – quality guarantee period**

The quality guarantee period of seamless flux cored wire shall be for 24 months after production as long as they have been stored under the conditions specified in “methods of storage” above. However, products can be used even after the lapse of the above mentioned period if no physical or chemical changes such as rusting, discoloration etc. are observed on the surface of the wires.

**Handling**

It is advised that opened cartons should be used within 5 days after being unpacked, under normal atmospheric conditions.
This period can be extended longer, however wire inspection should take place regularly to check for rust formation (when rust spots are observed the remaining wire should be disposed of).

**Hydrogen levels**

As part of the manufacturing process hydrogen measurements are taken of all NST and Nittetsu seamless flux cored seamless wires (this data is available on the wire batch certificate).

The following table gives the results of hydrogen levels for wire fresh out of the carton, and wire which have been exposed to normal atmospheric conditions for 5 days.

<table>
<thead>
<tr>
<th>Fresh from carton</th>
<th>5 days exposed in normal atmosphere</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>3.4</td>
</tr>
<tr>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Avg: 3.3</td>
<td>Avg: 3.5</td>
</tr>
</tbody>
</table>

(ml/ 100g weld metal)

Jan 2012   REV:5