## Features and typical fields of application

- **Familiarc™ OW-S50H** is a self shielded mild steel flux-cored wire for flat and horizontal welding in single pass and multi pass welding without requiring shielding gas.

- Its porosity resistance formula allows to weld even under the wind of 10m/sec (19 knots, fresh breeze) without causing blow holes with properly controlled welding parameter and wire stick out.

- Its flat bead profile with very stable arc minimizing spatter generation formula applying to DCEN polarity make it the best choice for on-site welding like structural fabrication, scaffolding, machinery structures, or tank fabrications.

## Typical result of weld metal test per AWS A5.20

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>P</th>
<th>S</th>
<th>Ni</th>
<th>Al</th>
<th>0.2% PS (ksi)</th>
<th>TS (ksi)</th>
<th>EL (%)</th>
<th>CVN (ft-Lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.13</td>
<td>0.15</td>
<td>1.5</td>
<td>.009</td>
<td>&lt;.001</td>
<td>0.5</td>
<td>1.54</td>
<td>65</td>
<td>85</td>
<td>26</td>
<td>36</td>
</tr>
</tbody>
</table>

+68°F

## Available Sizes

<table>
<thead>
<tr>
<th>Wire Dia.</th>
<th>1/16” (1.6mm), 5/64” (2.0mm), 3/32” (2.4mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package</td>
<td>22Lbs (10kg) spool</td>
</tr>
</tbody>
</table>

### DISCUSSION

- **Information in this material, such as chemical compositions and mechanical properties, is typical or an example for explaining the features and performances of our products, and it does not mean guarantee unless otherwise it is specified.**

- **Information contained herein is subject to change without notice. Please kindly contact Kobelco for latest information.**

### WARNING

This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.
Recommendation for Use

Welding Operation Range

Please keep noted to have longer wire stick out when welding than conventional gas shielded flux cored wire to avoid blowholes or porosity in its weld metal. Welding parameter recommended is as follows:

- Polarity: DCEN
- Wire Stick Out: 1 ¼” to 2”
  - 1/16” 160-320A
  - 5/64” 180-360A
  - 3/32” 200-400A

Cold Cracking Prevention

Preheating and Interpass temperature control is recommended to prevent cold cracking especially when using this product to weld thick plates over 1”. The guide line of the minimum temperature to control for the cold crack prevention is 250 F.