## Lincore® 60-0

### General Description

Deposits feature higher alloy levels than to resist both abrasion and moderate impact. Can be used at temperatures up to 704°C. To be used on carbon, low alloy, manganese and stainless steels and cast iron. Deposit is limited to two layers.

### Welding Positions (ISO/ASME) & Current Type

<table>
<thead>
<tr>
<th>Welding Positions (ISO/ASME)</th>
<th>Current Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA/1G</td>
<td>DC+</td>
</tr>
</tbody>
</table>

### Chemical Composition (W%), Typical, All Weld Metal

<table>
<thead>
<tr>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>Cr</th>
<th>Al</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2</td>
<td>1.6</td>
<td>1.3</td>
<td>25.4</td>
<td>0.6</td>
</tr>
</tbody>
</table>

### Structure

In the as welded condition the microstructure consists of primary carbides in an austenite - carbide eutectic matrix.

### Mechanical Properties, Typical, All Weld Metal

**Typical hardness values**

- Layer 1: 55 - 60 HRc
- Layer 2: 58 - 60 HRc
- Welded on Mild Steel Plate (12mm)

### Packaging and Available Sizes

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>1.1</th>
<th>1.6</th>
<th>2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.34kg coil 22RR</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

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All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.eu for any updated information. Fumes: Material Safety Data Sheets (MSDS) are available on our website.
Lincore® 60-O

APPLICATION

Lincore 60-O produces an primary carbide weld deposit with a hardness range of 55-60HRc. The primary carbide microstructure makes Lincore 60-O ideally suitable for applications of severe abrasion.

Typical applications include:
Bucket lips
Crusher hammers
Ore chutes
Dozer blades
Ripper teeth

ADDITIONAL INFORMATION

When welding with Lincore 60-O stringer beads should be employed. Weaving is not advised since wide weaves generally increase the check crack spacing which can result in deposit spalling. Preheat is not necessary when surfacing austenitic substrates such as stainless steels and manganese steels, although the interpass temperature should be limited to about 260°C for manganese steels. For low alloy and high carbon steels a preheat of 200°C is necessary to prevent heat affected zone cracking.

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The weld metal is not machinable or forgeable and it readily check cracks. The deposit thickness is usually limited to 2 layers, as excessive build-up will result in chipping and fragmentation.

For applications requiring build-ups in excess of 2 layers, buttering layers of Lincore 33, Wearshield BU30 or RepTec 126

Alternatively, a preheat of 650°C can be used to eliminate the formation of check cracks

CALCULATION DATA

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Wire Feed Speed (cm/min)</th>
<th>Current (A)</th>
<th>Arc Voltage (V)</th>
<th>Deposition rate (kg/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>51-12.7</td>
<td>125-210</td>
<td>21-27</td>
<td>1.9-4.7</td>
</tr>
<tr>
<td>1.6</td>
<td>51-11.4</td>
<td>240-350</td>
<td>28-33</td>
<td>3.4-75</td>
</tr>
<tr>
<td>2.0</td>
<td>3.2-4</td>
<td>250-400</td>
<td>25-32</td>
<td>3.4-6.9</td>
</tr>
</tbody>
</table>

COMPLEMENTARY PRODUCTS

Complementary products include Wearshield® 60.