

# Tool-Alloy® GP-O



## DESCRIPTION:

**Tool-Alloy GP-O** is a multi-purpose wire recommended for joining dissimilar metals and hard-to-weld steels. It can be used for any high strength applications where wear, impact, heat and corrosion resistant properties are required.

## OPERATIONAL CHARACTERISTICS:

Tool-Alloy GP-O is an open-arc tubular wire which requires no external shielding gas. It has a globular transfer and good slag release.

## TYPICAL WELD METAL PROPERTIES\* (CHEM PAD):

### Weld Metal Analysis

|                |       |
|----------------|-------|
| Carbon (C)     | 0.06  |
| Manganese (Mn) | 1.00  |
| Silicon (Si)   | 0.50  |
| Chromium (Cr)  | 26.50 |
| Nickel (Ni)    | 9.00  |
| Iron (Fe)      | Bal.  |

## TYPICAL MECHANICAL PROPERTIES\* (AS WELDED):

|                     |             |
|---------------------|-------------|
| Tensile Strength    | 120,000 psi |
| Yield Strength      | 90,000 psi  |
| Elongation % in 2"  | 27%         |
| Machinability       | Good        |
| Thickness           | As required |
| Non-magnetic        |             |
| Cannot be flame cut |             |

## RECOMMENDED OPERATING PARAMETERS:

| Diameter<br>Inches | Diameter<br>mm | Type of Power | Stick-out<br>Inches | Stick-out<br>mm | Optimum<br>Amps | Volts   | Deposition Rate<br>lb./hr. |
|--------------------|----------------|---------------|---------------------|-----------------|-----------------|---------|----------------------------|
| 1/16               | 1.6            | DCEP          | 1/2 - 1             | 13 - 25         | 150 - 275       | 26 - 32 | 9 - 15                     |

## AVAILABLE DIAMETERS AND PACKAGES:

| Diameter<br>Inches | Diameter<br>mm | 60-lb.<br>Coil |
|--------------------|----------------|----------------|
| 1/16               | 1.6            | S592119-062    |

## APPLICATIONS:

- Welding attachments to manganese castings
- Welding grouser bars to grousers
- Welding T-1 steel lips to manganese buckets.

**TECHNICAL QUESTIONS?** For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at [Applications.Engineering@hobartbrothers.com](mailto:Applications.Engineering@hobartbrothers.com)

## CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 8669 NW 36 St, # 130, Doral, FL 33166-6672 (can also be downloaded online at [www.aws.org](http://www.aws.org)); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

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