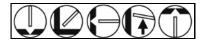
Hobart[®] Maxal[®] 5556



AWS A5.10: ER5556, R5556

WELDING POSITIONS:



FEATURES:

- Very high strength (43 ksi typical)
- High ductility/toughness/fatigue strength
- Equivalent corrosion resistance when welding 5456 base material
- Lower ductility/formability
- · Lower electrical conductivity and thermal conductivity

APPLICATIONS:

• 5456 and lower strength alloys (42 ksi minimum UTS)

SHIELDING GAS: 100% Argon (Ar) or Argon/Helium mixtures, typical: GMAW - 35-50 cfh (14-24 l/min)

BENEFITS:

base materials

GTAW - 20-30 cfh (10-14 l/min)

Very good color match after anodizing with 5xxx/6xxx

Higher column strength/better feedability

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP) for GMAW, AC for GTAW

STANDARD DIAMETERS: 3/64" (1.2 mm)

STORAGE: Product should be stored in a dry, enclosed environment, and in its original intact packaging

TYPICAL CHEMICAL VALUES*:

| Weld Metal Analysis (%) | ER & R 5556 | | |
|-------------------------|-------------|--|--|
| Silicon (Si) | 0.25 | | |
| Iron (Fe) | 0.40 | | |
| Copper (Cu) | 0.10 | | |
| Manganese (Mn) | 0.50-1.0 | | |
| Magnesium (Mg) | 4.7-5.5 | | |
| Chromium (Cr) | 0.05-0.20 | | |
| Zinc (Zn) | 0.25 | | |
| Titanium (Ti) | 0.05-0.20 | | |
| Beryllium (Be) | <0.0003 | | |
| Others Each | 0.05 | | |
| Others Total | 0.15 | | |
| Aluminum (AI) | Remainder | | |
| | | | |

^{*}Unless noted-single values are maximums.

TYPICAL MECHANICAL PROPERTIES:

| Mechanical Tests | ER & R 5556 | AWS Spec |
|------------------|----------------------|----------------------|
| Tensile Strength | 43,000 psi (296 MPa) | 42,000 psi (290 MPa) |

TYPICAL PHYSICAL PROPERTIES:

| Melting Range | Density | Electrical/Thermal Conductivity | Anodized Color | Elevated Temp. Applications +150°F (+66°C) |
|----------------------------|--|------------------------------------|-------------------|--|
| 1060-1175°F (570-635°C) | 0.096 lbs/in ³ (2.657 g/cm ³) | 29% IACS/810 EU | White | NO |

^{*}The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers LLC expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with AWS A5.10 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers LLC.

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| Diameter | Weld Position | Amps Volts | | Wire Fee | ed Speed | Deposit | ion Rate | CT\ | ΝD |
|----------------|----------------|------------|------|----------|----------|---------|----------|--------|------|
| Inches (mm) | Wold F Collien | | | in/min | (m/min) | lbs/hr | (kg/hr) | Inches | (mm) |
| 3/64" (1.2 mm) | All Position | 180 | 21.4 | 400 | (10.2) | 10.5 | (4.8) | 5/8 | (16) |
| 3/64" (1.2 mm) | All Position | 195 | 22.4 | 450 | (11.4) | 11.9 | (5.4) | 5/8 | (16) |
| 3/64" (1.2 mm) | All Position | 210 | 23.3 | 500 | (12.7) | 13.2 | (6.0) | 5/8 | (16) |
| 3/64" (1.2 mm) | All Position | 250 | 24.4 | 550 | (14.0) | 14.5 | (6.6) | 5/8 | (16) |
| 3/64" (1.2 mm) | All Position | 260 | 24.5 | 600 | (15.2) | 15.8 | (7.2) | 5/8 | (16) |

Maintaining a proper welding procedure - including cleaning, oxide removal, pre-heat and interpass temperatures - may be critical depending on the type and thickness of aluminum being welded. See Above: This information was determined by welding using 100% Argon shielding gas with a flow rate between 35-50 cfh (14-24 l/min).

AVAILABLE DIAMETERS AND PACKAGES: For a complete list of diameters and packaging, please contact Hobart Brothers at (800) 424-1543 or (937) 332-5188 for International Customer Service.

| Diam Inches | | 16-lb. (7.3 kg) Plastic Spool |
|----------------|-------|-------------------------------------|
| Net F Wei | | 1296-lb. (588 kg) |
| 3/64 | (1.2) | 555604712P |

CONFORMANCES AND APPROVALS:

- AWS A5.10, ER5556, R5556
- ASME SFA 5.10, ER5556, R5556
- CWB, ER5556 (0.9 mm 1.6 mm)
- ABS, ER5556 (0.047" 0.062"), R5556 (0.125")
- CE Marked per CPR 305/2011 (0.047" 0.062")
- **BD**, EN ISO 18273-S AL 5556 (AIMg5Mn)

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

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 36th St., Miami, FL 33166 (can also be downloaded online at www.aws.org); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Safety Data Sheets on any Hobart Brothers LLC product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

Because Hobart Brothers LLC is constantly improving products, Hobart reserves the right to change design and/or specifications without notice.

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