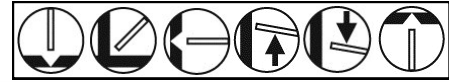


QCL-D2



AWS ER80S-D2, ER90S-G

WELDING POSITIONS:



FEATURES:

- Smooth, stable arc through a wide range wire feed speeds
- Excellent arc starts in all applications
- Low spatter levels
- Higher tensile and yield strengths
- Bead ties in smoothly to the weld joint
- Copper-less solid wire

BENEFITS:

- Increased productivity, consistent feeding
- Less downtime, increased productivity
- Reduced clean-up time
- High quality welds to match the requirements of the base metal
- Less grinding, attractive bead appearance
- No risk of feeding issues due to copper flaking

APPLICATIONS:

- High temperature service piping
- Trailers
- Construction equipment
- Cranes

SHIELDING GAS: 100% Carbon Dioxide (CO₂), 75-92% Argon (Ar)/Balance Carbon Dioxide (CO₂) 25-50 cfh (9-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.035" (0.9 mm), 0.045" (1.2 mm)

RE-DRYING: Not recommended

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

TYPICAL WELD METAL PROPERTIES* (Wire Chemistry):

Weld Metal Analysis (%)	100% CO ₂	AWS Spec
Carbon (C)	0.08	0.07-0.12
Manganese (Mn)	1.67	1.60-2.10
Silicon (Si)	0.65	0.50-0.80
Phosphorus (P)	0.009	0.025 max
Sulphur (S)	0.012	0.025 max
Molybdenum (Mo)	0.47	0.40-0.60
Nickel (Ni)	0.08	0.15 max
Copper (Cu)	0.06	0.50†

† Copper content of wire and copper coating shall not exceed .5% max.

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	100% CO ₂	AWS Spec
Tensile Strength	94,000 psi (652 MPa)	80,000 psi (552 MPa) Minimum
Yield Strength	79,000 psi (547 MPa)	68,000 psi (469 MPa) Minimum
Elongation % in 2" (50 mm)	23%	17%

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (As Welded):

CVN Temperatures	100% CO ₂	AWS Spec
Avg. at -20°F (-29°C)	41 ft•lbs (56 Joules)	20 ft•lbs (27 Joules) Minimum

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with the AWS A5.28 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 Company.

QCL-D2

Diameter		Weld Position	Amps	Volts	Wire-Feed Speed		Deposition Rate		Contact Tip to Work Distance	
Inches	(mm)				in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
0.045	(1.2)	All Positions	180	22	260	(6.6)	5.4	(2.4)	3/4	(19)
0.045	(1.2)	All Positions	230	24	380	(9.7)	7.9	(3.6)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	260	26	475	(12.1)	9.9	(4.5)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	305	27	590	(15.0)	12.2	(5.6)	3/4	(19)

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**
- **For out of position welding, short circuit or pulsed spray transfer modes must be used.**
- **See Above:** The information above was determined by welding using 75% Ar/25% CO₂ shielding gas with a flow rate between 25-50 cfh (9-24 l/min).

STANDARD 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.

Diameter		45-lb. (20.5kg) Spool
Inches	(mm)	
0.035	(0.9)	S301808-085
0.045	(1.2)	S301812-085

CONFORMANCES AND APPROVALS:

- **AWS A5.28**, ER80S-D2, ER90S-G
- **ASME SFA 5.28**, ER80S-D2, ER90S-G A-11, F-6
- **CWB**, 100% CO₂, B-G 55A 3 C G4M31 (ER80S-D2)

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 36 St, # 130, Doral, FL 33166-6672 (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

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

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

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Revision Date: 141126 (Replaces 140714)
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