

AWS E7024, E7024-1 (E4924-1*)

Hobart® 24**DESCRIPTION:**

Hobart 24 is an excellent high-speed electrode for fillet welds. It is exceptionally fast when used down hand in properly designed weld joints or in horizontal fillet welds where equal leg fillets are desired. When a drag welding technique is used, the electrode operates well on either AC or DC (electrode negative) power. The arc force of Hobart 24 minimizes slag entrapment, and the slag is self-removing in most applications.

APPLICATIONS:

Earthmoving equipment, mining machinery, plate fabrication, railroad cars, structurals, shipbuilding and mobile trailers.

FEATURES:

- High deposition
- Uses drag welding technique
- Self-removing slag
- Meets E7024-1 specifications

BENEFITS:

- Faster travel speed
- Easy to use
- Easy clean-up
- Hobart 24 can be used wherever an E7024 or E7024-1 is called for

TYPICAL WELD METAL PROPERTIES(Chem Pad):**

Weld Metal Analysis		AWS Spec (max)
Carbon (C)	0.06	not required
Manganese (Mn)	0.81	1.25
Phosphorus (P)	0.018	not required
Sulphur (S)	0.019	not required
Silicon (Si)	0.43	.90

TYPICAL MECHANICAL PROPERTIES(AW):**

		AWS Spec (min)
Tensile Strength	82,000 psi (565 MPa)	70,000 psi
Yield Strength	72,000 psi (496 MPa)	58,000 psi
Elongation % in 2"	25%	22%
Reduction of Area	20% to 40%	not required

TYPICAL CHARPY-V-NOTCH IMPACT VALUES(AW):**

		AWS Spec (min)
Avg. at 0°F (-18°C)	42 ft•lbs (57 Joules)	20 ft•lbs

TYPE OF CURRENT: DCEN or AC

CONFORMANCES AND APPROVALS:

- AWS A5.1, E7024, E7024-1ASME SFA5.1, F-1, A-1
- ABS Grade 3
- CWB E4924-1

* CWB classification

NOTE: 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 AWS A5.1 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.

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RECOMMENDED WELDING PROCEDURES:

GENERAL:	AC or electrode negative, work positive (DCEN)
ARC:	Short arc or drag technique
FLAT:	Use faster speed of travel; angle electrode 30° from 90°
VERTICAL-UP:	Not recommended
VERTICAL-DOWN:	Not recommended
OVERHEAD:	Not recommended
STORAGE:	60°F to 100°F, (20° to 40°C) and below 50% relative humidity or holding oven @ 100° to 120°F (38° to 49°C)
RECONDITIONING:	250°F to 300°F, (121° to 149°C) for one hour @ temperature

RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
Inches	mm				
1/8	3.2	AC or DCEN	130	140	150
5/32	4.0	AC or DCEN	180	200	225
3/16	4.8	AC or DCEN	200	240	280
7/32	5.6	AC or DCEN	250	280	320
1/4	6.4	AC or DCEN	300	330	360

*For out of position welding, reduce amperages shown by 15%.

TYPICAL DEPOSITION DATA (at optimum):

Diameter		Type of Power	Amps	Deposition Rate lbs/hr	Deposition Efficiency*%
Inches	mm				
1/8	3.2	DCEN	140	3.42	65.8
5/32	4.0	DCEN	200	4.94	68.2
3/16	4.8	DCEN	240	6.06	69.3
7/32	5.6	DCEN	280	7.35	69.0
1/4	6.4	DCEN	330	8.83	69.1

*Allowance made for 2" stub loss included.

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		50-Lb. Carton
Inches	mm	Inches	mm	
1/8	3.2	14"	355	S114844-031
5/32	4.0	14"	355	S114851-031
3/16	4.8	18"	457	S114858-031
7/32	5.6	18"	457	S114870-031
1/4	6.4	18"	457	S114881-031

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service.

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

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