Tube-Alloy® 242-O

OPEN ARC HARD SURFACING WIRE **Overlay**

REPLACES 990129 260-L, INDEX 060612

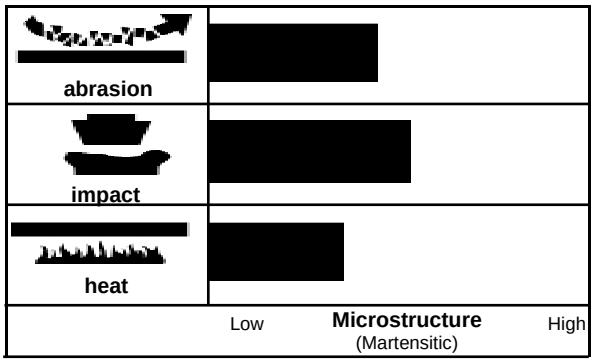
DESCRIPTION:

Tube-Alloy 242-O is a self-shielded, flux-cored wire that deposits a premium martensitic alloy steel. It has excellent resistance to adhesive (metal-to-metal) wear. The deposit's good resistance to abrasion and impact makes it a versatile overlay alloy. It is designed for use as an overlay on carbon and low-alloy steels or a base of Tube-Alloy Build Up-O. With proper preheating, crack-free deposits can be obtained. Tube-Alloy 242-O should never be used for joining.

OPERATIONAL CHARACTERISTICS:

Tube-Alloy 242-O has a steady arc with a globular transfer. Spatter and noise levels are minimal, with a complete, easily removed slag cover. Out-of-position welding is limited to a horizontal shelf technique.

RELATIVE WEAR RESISTANCE:



TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

WELD METAL ANALYSIS

Carbon (C)	0.25
Manganese (Mn)	1.30
Silicon (Si)	0.70
Chromium (Cr)	4.00
Molybdenum (Mo)	0.50
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

	Number of Layers	As-Deposited on 1020 Steel
Hardness	1	36 Rc
	2	39 Rc
	3	42 Rc
Abrasion resistance		Good
Impact resistance		Good
Machinable		
Can be flame cut		
Magnetic		

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. No data is to be construed as a recommendation for any welding condition or technique not controlled by McKay.

McKay Welding Products • 400 Trade Square East Troy, OH 45373 USA • www.hobartbrothers.com
PH: (800) 424-1543 • FX: (800) 541-6607 • Outside U.S., PH: (937) 332-5188 or FX: (937) 332-5898

Tube-Alloy® 242-O

RECOMMENDED OPERATING PARAMETERS:

DIAMETER INCHES	DIAMETER MM	TYPE OF POWER	STICK-OUT INCHES	STICK-OUT MM	OPTIMUM AMPS	VOLTS	DEPOSITION RATE AMPS	DEPOSITION RATE LB/HR
.045	1.2	DCEP	1/2-1	13-25	120-160	19-23	130	4
					160-190	**24-25**	180	7
					190-230	26-27	220	10
1/16	1.6	DCEP	1 1-1/2	25—38	225—275	23—25	200	6
					275—350	**24—27**	250	10
					350—400	26—29	300	14
7/64	2.8	DCEP	1 - 1/2 - 2	38-51	350 - 400	24 - 27	300	11
					400 - 450	**26 - 29**	350	14
					450 –500	28 - 32	400	18

Start with **middle ranges** and adjust accordingly. Higher amperages will increase deposition rate, dilution, and heat input to base metal, increasing voltage will widen and flatten bead profile, but excessive voltage will result in porosity. Too much electrical stick-out may result in increased spatter, too little may result in internal porosity.

AVAILABLE DIAMETERS AND PACKAGES:

DIAMETER INCHES	DIAMETER MM	25-LB. SPOOL	60-LB. COIL
.045	1.2	S604212-029	——
1/16	1.6	S604219-029	S604219-062
7/64	2.8	——	S604239-062

APPLICATIONS:

- Carbon Steel Frogs
- Carbon Steel Rolls
- Crane Wheels
- Idlers
- Rail Ends
- Steel Shafts
- Switch Points
- Tractor Rollers