

# **EuTronic®** **Arc Spray Wires**



Parameters for EuTronic® Arc Spray Wires



Exclusive EuTronic® Arc Wire Range

WIRE	ALLOY COMPOSITION	BOND STRENGTH (PSI)	TYPICAL HARDNESS	APPLICATIONS	USAGE	DIAMETER (INCHES)	AIR PRESSURE* (PSI)	VOLTAGE*	AMPERAGE*	STANDOFF* (INCHES)
500 AS	Ni-Al	9000	75 HRB	Bond Coat	Bond layer and as a one-step build-up material for dimensional restoration.	1/16	50-60	29-32	100-200	4-8
502 AS	Fe-Cr-Ti-Si-Mn	5500	62-63 HRC	Bond Coat	Self-bonding, iron-base coating for boiler tube applications to resist fine particle erosion.	1/16	Contact a Eutectic specialist for further details.			
514 AS	Fe-Cr-Al	6300	85-90 HRB	Dimensional Restoration	Its low shrink characteristic allows increased coating thickness. Coating thickness greater than 0.150" can be achieved.	1/16	50-60	29-30	100-300	5-7
520 AS	Zinc	1224	60-73 HRB	Anti-corrosion resistance in atmospheric and marine environments	Coatings are used in environments where pH is greater than 6.0. Also used for EMI/RFI shielding and capacitor end spraying.	1/16, 5/64, 3/32, 1/8, 3/16	50-60	20-21	50-300	3-10
521 AS	Zn 85-Al 15	3680	73 HRB	Better corrosion resistance than zinc or aluminum wire alone	For marine and freshwater applications where the coating will be immersed, the coating must be used with a sealer to allow long term corrosion protection.	5/64, 3/32, 1/8, 3/16	50-60	20-21	100-300	3-10
525 AS	Al: 99.5	4375	30 - 75 HRB	This 525AS aluminum wire meets the standard specification AA 1350	The as-sprayed coating provides resistance to atmospheric, chemical and high temperature corrosion as well as excellent electrical and heat conductivity.	5/64, 3/32, 1/8, 3/16	50-60	28-30	100-200	3-8
528 AS	Al-Si	3800	72 HRB	Element Repair, Casting Blowholes	For repair of worn aluminum and magnesium parts.	1/16	50-60	28-30	50-200	3-5
530 AS	C-Si-Mn-Fe	5800	95-100 HRB	Part Restoration	Suitable for re-build applications where hardness is not critical, but where low costs are a factor.	1/16	50-60	28-30	100-300	4-7
531 AS	Fe + borides no Cr	5700	39 - 40 HRC	Abrasive and wear resistant coating	Especially suited for applications where there is fine-particle abrasion such as fan blades.	1/16	40-50	28-32	150-250	6-8
532 AS	Fe-Cr-Mn	5076	45-50 HRC	Cylinder Liners, Hydraulic Rams	Use against metal to metal friction, corrosion and erosion coatings in general workshops.	1/16	50-60	28-30	100-200	4-6
535 AS	Fe-Al Composite	8000	35 HRC	Traction Rolls, Machine Elements	May be used as an anti-skid coating with mild abrasion resistance.	1/16	15-(Anti-Skid) 50-(Dense, Bond Coating)	27-30	200-350	4-(Anti-Skid) 5-(Dense, Bond Coating)
538 AS	C-Si-Mn-Fe	8400	23 HRC	Thick Coatings	Dense coatings have excellent resistance to mild abrasion and exhibit low shrinkage.	1/16	50-60	29-30	100-300	5-7
543 AS	Ni 80-Al 20	9100	65-75 HRB	Bond Coat	It produces dense oxidation resistant bond coats but can also be used as a one-coat system for dimensional buildup on steels, alloy steels, stainless steels, aluminum, nickel, cast iron and titanium. It is not self-bonding to copper based alloys.	1/16, 1/8	50-60 55 psi max when using ArcJet	29-32	100-200	3-6
544 AS	Ni 80-Cr 20	7300	90 HRB	High temperature oxidation and corrosion resistance	Build up of carbon steel and corrosion steels, providing oxidation and corrosion resistance. Ceramic coatings - oxidation/corrosion resistant bond coats.	1/16	50-60	28-32	150-250	6-8
545 AS	Cr-Ti-Ni	7000	30-35 HRC	Boiler Equipment	Used to protect boiler tubes in black liquor recovery boilers and coal-fi red utility boilers.	1/16	50-60	30-32	100-200	4-6
546 AS	Ni-Cr-Mo-Fe-W	7000	35 HRC	Corrosion Resistance	Corrosion cracking resistance in various alkaline, acidic and chloride environments. Its hardness makes it resistant to abrasion and resists metal to metal wear.	1/16	50-60	29-32	50-300	3-8
547 AS	Ni-Cr-Mo-Fe-Nb-Ta	7000	92 HRB	Erosion, oxidation and corrosion resistance at temperatures	It produces dense, well-bonded coatings with good erosion, corrosion and oxidation resistance at temperatures up to 1600°F (870°C). Coatings have good resistance to stress corrosion cracking in various caustic, acidic and chloride environments.	1/16	40-50 55 psi max when using ArcJet	28-30	100-200	4-6
548 AS	Ni-Al-Mo	7500	75-85 HRC	Bearings, Pump Shafts	Primarily used for dimensional restoration, but may also be used as a bond coat.	1/16	50-60	30-32	100-200	4-6
552 AS	Cu-Al-Mn	7000	67 HRB	Sleeves Bearings	Aluminum-bronze coating exhibits excellent bond strength and good machinability.	1/16	50-60	30-32	100-200	4-8
553 AS	Cu-Ni-Al	9000	90 HRB	AWS A5.7 ER CuNiAl for arc spraying	Excellent corrosion resistance in salt water environments.	1/16	60-70	29-32	100-200	3 -8
560 AS	C-Si-Mn-Fe-Cr	4700	40-43 HRC	Dimensional Restoration	Excellent resistance to mild abrasion and corrosion for dimensional restoration.	1/16	50-60	28-30	100-200	4-6
562 AS	C-Si-Mn-Fe	5800	95 HRB	Seating Bearings, Bearing Housings	Good bonding properties for dimensional restoration repair of mis-matched parts.	1/16	50-60	29-30	100-300	5-8
563 AS	Fe-Ni-Al-Mo	5500	90 HRB	Diesel Fire Decks, Cylinder Heads	Machinable, self-bonding coating suitable to re-build worn diesel engine components.	1/16	50-60	30-32	100-200	3-5
564 AS	18/5 SS	4350	90-95 HRB	Low Shrinkage Coating	It produces dense, well-bonded low shrink coatings with excellent machineability and wear and corrosion resistance.	1/16	50-60 55 psi max when using ArcJet	28-30	100-200	4-6
565 AS	304 SS	4650	95-100 HRB	Part Restoration, Re-Surfacing	Widely used for machine element repair and dimensional restoration.	1/16	50-60	28-30	100-200	4-6
566L AS	316L SS	6735	95-100 HRB	Excellent machinability and corrosion resistance	Used for machine element repair and dimensional restoration applications. It has relatively high shrinkage characteristics and should not be used for coatings over 0.075" in thickness. If greater thicknesses are required, first apply Eutronic Arc Spray 560 and finish with 566L.	1/16	50-60	28-30	100-200	4-6
575 AS	Ni-Cr-B-Si	-	49 HRC	Abrasion and friction resistant coatings	It can be used in a wide variety of high wear applications on all steels, stainless steels and nickel alloys. Especially suited for applications where there is particle abrasion.	1/16	40-50 55 psi max when using ArcJet	28-32	150-250	6-8
585 AS	Tin-Based Wire	3000	Negligible	Babbitt bearing rebuilds	The coatings produced are dense, well bonded and suitable for use in applications requiring a high speed and heavy duty bearing surface.	5/64, 1/8	50-60	21-23	100-200	4-8
592 AS	Highly Alloyed, Fe + borides	-	Microhardness: As sprayed: > 50 HRC	Excellent protection against erosion and abrasion	Coatings of Eutronic Arc 592 do not contain nickel or chromium. The boride rich deposits provide resistance to high temperature erosion and oxidation.	1/16	50-60	30-32	100-200	3
595 AS	Fe-Cr-B-Si-Mn-C	4500	60 HRC	Exhaust Fans Coal-Fire Boilers	One-step protective coating against wet or dry erosion.	1/16	50-60	30-32	100-200	3-5
599 AS	WC in a Ni-based matrix	-	Typical Macro Hardness: 55 Rc WC Hardness: ~ 2400 HV	Sliding abrasion and erosion	Applications include paper winding cylinders, mixer blades, augers, reciprocating pump plungers, compressor rods, and pump shafts.	1/16	40-50	28-32	150-250	6-8
Cavitec	Fe-Cr-Co-Mn	4000 – 4500	25-30 HRC (macrohardness) HV30 240-280 (microhardness) May work harden in service to HRC 40-45	Pump Impellers, Valve Trim, Pump Sleeves, Seal Rings, Seal Rings, Water Inlet Piping, Pump Shafts	Exceptional service in fluid flow applications invloving corrosion along with erosion or cavitation.	1/16	50-60	29-30	150-300	5-7 (3-5 with ArcJet)

\* Parameters are typical and may vary depending on the equipment used. Contact your equipment manufacturer for optimum spray parameters.

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# Coatings



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