

# THERMAL SPRAY WIRES

## Metal Alloys

Product Name	Chemical Composition	Product ID	Available Sizes	Comparable Products	Comparable Specifications	Hardness and Bond Strength	Typical Characteristics and Applications
HA101B	<b>Aluminum Silicon</b> Al 12Si	21101-1	1/16"	Tafa 01A	MIL-w-6712C PWA 36935 GE B50TF92S2 CLA SNECMA DMR33-027	72 Rb 4250 PSI	<ul style="list-style-type: none"> <li>• Less corrosion resistance than pure aluminum</li> <li>• Non-galling, finer texture</li> <li>• Dimensional restoration</li> </ul>
HA101C	<b>Aluminum Silicon</b> Al 5Si	21101-2	1/8", 1/16"	Tafa 01S Praxair Aluminum S Metco SF Aluminum	MIL-W-6712C	95Rb 4250 PSI	<ul style="list-style-type: none"> <li>• Dimensional restoration</li> <li>• Machines easier and sprays raster than pure Al</li> <li>• Corrosion resistant</li> </ul>
HA110	<b>Aluminum Bronze</b> Cu 9Al .5Fe	21110	1/8", 1/16"	Tafa 10T Praxair Al Bronze Metco Sprabronze® AA	MIL-W-6712	65-68 Rb 6744 PSI	<ul style="list-style-type: none"> <li>• Reclamation, cavitation easy to spray</li> <li>• Readily machinable</li> <li>• Dense coatings</li> </ul>
HA104	<b>Babbitt</b> Sn 7Sb 3Cu	21104	1/8", 1/16" 3/16", 2 mm	Tafa 04T Praxair Babbitt HT Metco Sprababbitt® A	MIL-W-6712C	32-35 R <sub>15T</sub> 2871 PSI	<ul style="list-style-type: none"> <li>• Bearing reclamation capacitors</li> <li>• Good electrical conductivity</li> <li>• Dense coatings</li> </ul>
HA112	<b>Brass</b> Zn 60Cu .7Sn .06Pb	21112	1/16"	Tafa 12T Praxair Brass	MIL-W-6712C	51 Rb 551 I PSI	<ul style="list-style-type: none"> <li>• Corrosion protection</li> <li>• Sprays fast, machines easy</li> <li>• Produces a smooth machined surface</li> </ul>
HA706	<b>Nickel Chrome</b> Ni 20Cr	21706	1/8", 1/16"	Tafa 06C Praxair 80/20 Metco Nickel #33	PWA 1317D MSSR9507/27 SNECMA DMR33-079	90 Rb 7324 PSI	<ul style="list-style-type: none"> <li>• Machinable</li> <li>• Heat Oxidation Resistance</li> <li>• Oxygen barrier under ceramic coatings</li> </ul>
HA770	<b>Monel</b> Ni 27Cu 2.0Fe 1.5Mg .25C .25Si .10Al S	21770	1/16"	Tafa 70T Praxair Monel Metco Monel	MIL-W-6712B	80-84 Rb 4307 PSI	<ul style="list-style-type: none"> <li>• Marine corrosion protection</li> <li>• Print rolls</li> </ul>
HA116	<b>Modified Silicon Bronze</b> Cu 2.9Si .89Mn	21116	1/16"	Tafa 16T	Standard Grade	29 Rb 4060 PSI	<ul style="list-style-type: none"> <li>• Restoration of Original Surface Condition</li> </ul>
HA118	<b>Modified Silicon Bronze</b> Proprietary	21118	1/16"	Tafa 18MXC®	Standard Grade	29 Rb 4060 PSI	<ul style="list-style-type: none"> <li>• Restoration of original Surface condition</li> <li>• Softer, more machinable</li> </ul>
HA535	<b>High Carbon Steel</b> Composite	21535	1/16"	Tafa 35MXC®	Standard Grade	60 Rc 8425 PSI	<ul style="list-style-type: none"> <li>• Extreme rough, high profile non-skid coatings</li> </ul>
HA538	<b>High Carbon Steel</b> Fe .8C .7Mg .10Si .04P .03S	21538	1/16"	Tafa 38T Praxair Steel #80 Metco Sprabond #80	MIL-W-6712C	23 Rc 8425 PSI	<ul style="list-style-type: none"> <li>• Low shrink material</li> <li>• High wear resistance</li> <li>• ID Fans</li> </ul>
HA530	<b>Medium Carbon Steel</b> Fe 1.0Mg .35Si .15C P S	21530	1/16"	Tafa 30T Praxair Steel #25 Metco Sprabond #25	MIL-W-6712C	97-100 Rb 5700 PSI	<ul style="list-style-type: none"> <li>• Dimensional restoration of mismachined and worn parts</li> </ul>

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HA560	<b>Stainless Steel</b> Fe 14Cr 1.0Mg 1.0Ni .3C .08Si P S	21560	1/8" 1/16", 3/16" 11 Gauge	Tafa 60T Praxair #2 Stainless Metco Metcoloy® #2	MIL-W-6712C RR OMAT #3/45D	40-43 Rc 4728 PSI	<ul style="list-style-type: none"> <li>• Good wear and corrosion Resistance</li> <li>• Best All Purpose Steel</li> </ul>
HA555	<b>Stainless Steel</b> Fe 18Cr 8.0Mg 5.0Ni .08Si .06C P S	21555	1/8", 1/16" , 3/16"	Tafa 55T Praxair #5 Stainless Metco Metcoloy #5	MIL-W-6712C	92-94 Rb 4162 PSI	<ul style="list-style-type: none"> <li>• Reclamation</li> <li>• Corrosion protection</li> <li>• Low shrinkage and good machinability</li> </ul>
HA580	<b>Stainless Steel</b> Fe 18Cr 8.0Ni 1.5Mg .5Si .12C P S	21580	1/16"	Tafa 80T Praxair #1 Stainless Metco Metcoloy #1	MIL-W-6712C	93-97 Rb 4100 PSI	<ul style="list-style-type: none"> <li>• Corrosion protection</li> <li>• Dimensional restoration</li> <li>• Print rolls</li> </ul>
HA585	<b>Stainless Steel</b> 316 S.S.	21585	1/8", 1/16"	Tafa 85T Metco Metcoloy 4	Standard Grade	93-97 Rb 4100 PSI	<ul style="list-style-type: none"> <li>• Corrosion protection</li> <li>• Dimensional restoration</li> </ul>
HA588	<b>Stainless Steel</b> 316L S.S.	21588	1/8", 1/16" 11 Gauge	Tafa 88T Praxair #16 Stainless Metco Metcoloy #16	Standard Grade	93-97 Rb 6744 PSI	<ul style="list-style-type: none"> <li>• Corrosion Protection</li> <li>• Dimensional Restoration</li> <li>• Print Rolls</li> </ul>
HA802B	<b>Tin</b> Sn 20Zn	21802-1	2 mm	Tafa 02T	Standard Grade	Dead Soft 2857 PSI	<ul style="list-style-type: none"> <li>• Low melting point</li> <li>• Corrosion resistance</li> <li>• Capacitor end coatings</li> </ul>
HA902B	<b>Zinc Aluminum</b> Zn 15Al	21902-1	2 mm	Tafa Tafaloy® 02A	Standard Grade	73 Rb 3683 PSI	<ul style="list-style-type: none"> <li>• Corrosion Protection</li> <li>• Oxidation resistance</li> <li>• Galvanizing</li> </ul>

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HA106	<b>Cobalt Alloy</b> Co 26Cr 10Ni 8W 1C	22106	1/16"	Tafa 106 MXC®	Standard Grade	58-69 Ra 6671 PSI	<ul style="list-style-type: none"> <li>• Erosion and wear resistance</li> <li>• Machinable</li> <li>• Restore cobalt parts</li> </ul>
HA206	<b>Cobalt Alloy</b> Co 28Cr 4Fe 3.5W 1.2C	22206	1/16"	Stellite 6	Standard Grade	45Rc 5700 PSI	<ul style="list-style-type: none"> <li>• Excellent galling properties</li> <li>• High bond strength</li> <li>• Excellent corrosion resistance</li> </ul>
HA524	<b>Iron Chrome Aluminum</b> Fe 23.5Cr 5.3Al .65Si	22524	1/16"	Tafa 24CA Praxair ALCRO	Standard Grade	88 Rb 7770 PSI	<ul style="list-style-type: none"> <li>• Boiler applications</li> <li>• Excellent machinability</li> <li>• Ability to have featheredge coatings</li> </ul>
HA774	<b>Molybdenum Nickel Aluminum</b> Ni 5.5Al 5.0Mo	22774	1/16"	Tafa 74MXC® Metco 8447	MSRR9507/35 GE B50TF166 Garrett FP5045	78 Rb 7454 PSI	<ul style="list-style-type: none"> <li>• Erosion and fretting wear</li> <li>• Salvage and build-up of machinable and gradable carbon steels</li> </ul>

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HA779	<b>Nickel Aluminum</b> Ni 20Al	22779	1/8", 1/16"	Tafa 79B Metco 405-1 Metco 405, 405NS	RR OMAT #3/90A	55-80 Rb 8949 PSI	<ul style="list-style-type: none"> <li>High temperature resistance</li> <li>Oxidation and abrasion resistant</li> <li>Dense coatings</li> </ul>
HA775	<b>Nickel Aluminum Bond Arc®</b> Ni 5Al	22775	1/16"	Tafa 75B Bond Arc® Metco 8400 Metco 450	PWA-36937 SNECMA DMR33-011 Garrett FP5045 RR OMAT #3/229	78 Rb 9746 PSI	<ul style="list-style-type: none"> <li>High temperature resistance</li> <li>Oxidation and abrasion resistant</li> <li>Dense coatings</li> </ul>
HA711	<b>Nickel Aluminum Bronze</b> Cu 9Al 4Ni 4Fe 1.5Mg	22711	1/16"	Tafa 11T	Standard Grade	60 Rb 9000 PSI	<ul style="list-style-type: none"> <li>Cavitation, reclamation of sliding components</li> <li>Corrosion protection</li> </ul>
HA773	<b>Nickel Chrome Aluminum</b> Ni 21Cr 7Al	22573	1/16"	Tafa 73MXC® Metco 8443	Standard Grade	95 Rb 7454 PSI	<ul style="list-style-type: none"> <li>Oxidation and corrosion resistant</li> <li>Self-bonding</li> <li>Salvage and build-up</li> </ul>
HA776	<b>Nickel Chrome Aluminum Yttrium</b> Ni 22Cr 10Al 1.0Y	22576	1/16"	Tafa 76MXC®	Standard Grade	52-90 Rb 10964 PSI	<ul style="list-style-type: none"> <li>Bond coat</li> <li>Oxidation resistant</li> </ul>
HA798	<b>Nickel Chrome Iron</b> Fe 26Cr 3Ni 1.7C 1.6Mg 1.6Si .8Mo	22798	1/16"	Tafa 98 MXC®	Standard Grade	39-42 Rc 5772 PSI	<ul style="list-style-type: none"> <li>Corrosion and wear resistant</li> <li>Easily machinable</li> <li>Good bond strength</li> </ul>
HA771	<b>Nickel Chrome Molybdenum</b> Ni 22Cr 10Mo 2Fe <i>Inconel® 625</i>	22771	1/16"	Tafa 71T Metco 8625	Standard Grade	92 Rb 6970 PSI	<ul style="list-style-type: none"> <li>Caustic stress corrosion</li> <li>Restoration of worn or mismachined components</li> </ul>
HA777	<b>Nickel Chrome Molybdenum</b> Ni 20Cr 20Mo 7Fe 4W <i>Hastelloy C-276</i>	22777	1/16"	Tafa 77T	Standard Grade	35 Rc 6990 PSI	<ul style="list-style-type: none"> <li>Acidic and hot gas corrosion</li> <li>Good abrasion and metal-to-metal wear</li> </ul>
HA778	<b>Nickel Chrome Molybdenum</b> Ni 18.5Cr 18.5Fe 3.0Mo <i>Inconel® 718</i>	22778	1/16"	Tafa 78T Metco 8718	GE #70-49-45, FAA RDA #000-637	30 Rc 8992 PSI	<ul style="list-style-type: none"> <li>Acidic and hot gas corrosion</li> <li>Restoration of worn or mismachined components</li> </ul>
HA745	<b>Nickel Chrome Titanium</b> Fe .63Mg .18C .05P .06S	22745	1/16"	Tafa 45CT	Standard Grade	32 Rc 6961 PSI	<ul style="list-style-type: none"> <li>Extreme resistance to corrosion</li> <li>Boiler applications</li> </ul>
HA595	<b>Ultradhard™ Armacor™ M</b> Proprietary High Chrome Steel	22595	1/16"	Tafa 95 MXC®	Standard Grade	70 Rc 5772 PSI	<ul style="list-style-type: none"> <li>Corrosion and wear protection</li> <li>Hard abrasion coatings</li> <li>High chrome finish</li> </ul>
HA590	<b>Ultradhard™ Armacor™ C</b> Fe 25Cr 10Ni 4Mo 2B 2Cu	22590	1/16"	Tafa 90 MXC®	Standard Grade	45 Rc 5076 PSI	<ul style="list-style-type: none"> <li>Corrosion and Wear Protection</li> <li>Increased hardness</li> <li>High chrome finish</li> </ul>

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HA596	<b>Ultrahard™ Armacor™ 16</b> Fe 21Cr 8Ni 3.2Mo 2.5B 2.2Cu 1.8Mg 1.5Si .2C	22596	1/16"	Tafa 96 MXC®	Standard Grade	53 Rc 5772 PSI	<ul style="list-style-type: none"><li>• High temperature corrosion protection and abrasion resistance</li><li>• High chrome finish</li></ul>

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## Carbides

Product Name	Chemical Composition	Product ID	Available Sizes	Comparable Products	Comparable Specifications	Hardness and Bond Strength	Typical Characteristics and Applications
HA205	<b>Chrome Carbide</b> Cr <sub>3</sub> C <sub>2</sub> 40Fe + FeC	31205	1/16", 2mm	Praxair Chrome Carbide	Standard Grade	45 Rc 5700 PSI	<ul style="list-style-type: none"> <li>• High hardness and wear resistance</li> <li>• For applications above 1000°F</li> </ul>
HA840	<b>Tungsten Carbide</b> Fe 41WC/W <sub>2</sub> C .1Zn	31840	1/16", 2mm		Standard Grade	52 Rc 6700 PSI	<ul style="list-style-type: none"> <li>• Excellent bond strength</li> <li>• Abrasion resistance</li> <li>• Dredge cutter blades</li> </ul>
HA597	<b>Ultrahard™ Duocor™</b> Fe 15Cr 5Ni 2B 1.5Si .7Mg +26WC + 6TiC	31597	1/16", 2mm	Tafa 97 MXC®	Standard Grade	64-69 Rc 5100 PSI	<ul style="list-style-type: none"> <li>• Abrasion and wear resistant</li> <li>• High bond strength</li> <li>• Non-skid surface</li> </ul>