Coating Material Compatibility Guide

✓ Successful Coating

? Contact SilcoTek for Clarification

X Not Successful Coating

Material Types	Silco- (SilcoNert®, SilcoKlean®, SilcoGuard®)	Silcolloy [®]	Dur- (Dursan® & Dursox®)	Notak [®]	Siltride [®]
6% Moly Alloys	V	√	V	V	√
AlNiCo8	√	X	X	√	√ V
Other ALNiCo Alloys	?	?	?	?	?
Aluminum ≥ 3% Magnesium (Mg)	X	Х	Х	X	Х
Aluminum ≥ 0.4% Lead (Pb)	X	Х	Х	X	X
Aluminum ≥ 0.4% Bismuth (Bi)	Х	X	Х	X	Х
Aluminum alloys not listed above	√	√	√	√	√
Brass	X	X	X		X
Bronze	X	X	X	X	X
Carbon	V	√ V	1	√	√ V
Carbon and Tool Steel (Not for corrosion)	?	?	?	?	?
Ceramics	√	√	V	√	· √
Copper and copper alloys	X	X	X	?	?
Elgiloy® (Possible undesired hardening)	?	?	?	?	?
Fecralloy®	· √	√	√ √	√	· √
Glass	√	V	V	- \(\frac{1}{}\)	V
Gold	?	?	?	?	?
Hastelloy®	√	√	√	√	√
Inconel®	√	√	V	\	1
Invar	√ √	1	V	- V	\ \ \ \ \
Lead and Lead Alloys	X	X	X	X	X
Manganese	√	X √	\(\)		\(\)
Monel®	X	X	X	?	√
Nickel and nickel plating	X	X	X	<u>:</u> √	X
Plastics and Fluoropolymers	X	X	X	X	X
Platinum	X √	X √	X √	<u> </u>	\ \ \ \ \
Silver	?	?	?	?	?
Stainless Steel		! √	: √		· · · · · · · · · · · · · · · · · · ·
	?	?	?	?	?
Super Duplex (Possible embrittlement)	· · · · · · · · · · · · · · · · · · ·	! √	: √	<u>:</u> √	· · · · · · · · · · · · · · · · · · ·
Tantalum	√ √	\ √	V √		\ \ \ \ \ \
Titanium	?	?	?		?
Tungsten Alloys	X	X	X	X	X
Zinc Surface Finish	^		^	^	^
Electropolished	$\sqrt{}$	$\sqrt{}$	V	V	√
Passivated	$\sqrt{}$	√	√	$\sqrt{}$	$\sqrt{}$
Hardened	$\sqrt{}$	√	√	V	$\sqrt{}$
Polished	V	√	√	√	V
Laser etched/engraved	$\sqrt{}$	√	√	√	√
Galvanized	X	X	X	Χ	X
Other coated or plated Weld or Braze	?	?	?	?	?
Vacuum-nickel Brazing		√ √		V	$\sqrt{}$
TIG/MIG Weld	√ √	V	√ √		√ √
Silver Solder (Must withstand 450°C)	?	?	?	?	?
Bronze Solder	X	X	X	X	X
Common Lead/Tin Solder	X	X	X	X	X

