可鲁逊合金(铜镍硅)合金

Corson Alloys

●可鲁逊(铜镍硅)合金拥有超过磷青铜·钛铜3倍的导电率。
通电时可以抑制发热的一种环保材料。
Cu-Ni-Si alloy shows 3 times higher electrical conductivity than that of phosphor bronze and titanium copper, so heat generation is suppressed when electrical current is applied.

●耐应力缓和优越，高温环境下也可以保持足够的接触力。
Cu-Ni-Si Alloy shows excellent resistance to stress relaxation, so contact force can be kept at a higher level in high temperature.

●连接器端子、引线框架等广泛使用。
JX high performance Cu-Ni-Si Alloy is widely used for connector terminal and lead frame of electrical components.

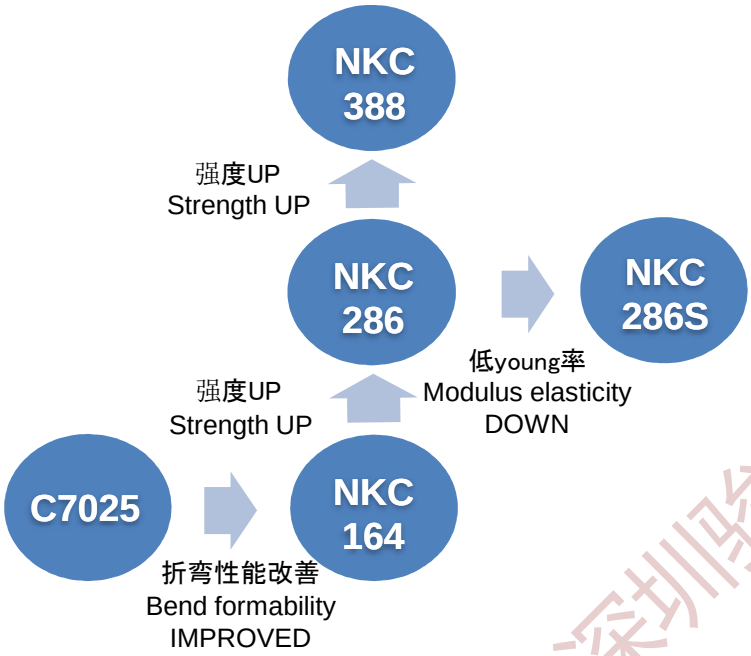
化学成分和物理特性 Chemical composition and physical properties

Alloy	Chemical composition (%)	Modulus of elasticity (GPa)	Electrical conductivity (%IACS)
C7025	Cu-3Ni-0.5Si-0.15Mg	131	45 48 (TM04S)
NKC164	Cu-1.6Ni-0.4Si-0.5Sn-0.4Zn	127	43
NKC286 NKC286S	Cu-2.8Ni-0.6Si-0.5Sn-0.4Zn	127 110	41
NKC388	Cu-3.8Ni-0.8Si-0.1Mg-0.13Mn	123 129 (XSH)	38 34 (XSH)

机械特性 Mechanical properties

Alloy	Temper	0.2% Yield strength (MPa)	Elongation (%)	Vickers Hardness
C7025	TR02	575	10	204
	TM02	644	13	215
	TM03	710	9	235
	TM04	800	3	248
	TM04S	772	3.8	246
NKC164	1/2H	610	8	190
	H	660	6	200
	EH	720	4	220
NKC286	1/2H	760	6	230
	H	810	4	245
	EH	860	2	260
NKC286S	1/2H	760	6	230
	H	830	2	255
NKC388	EH	820	6	250
	SH	910	3	285
	XSH	1000	-	325

可鲁逊(铜镍硅)合金的种类 Variety of our Corson alloys

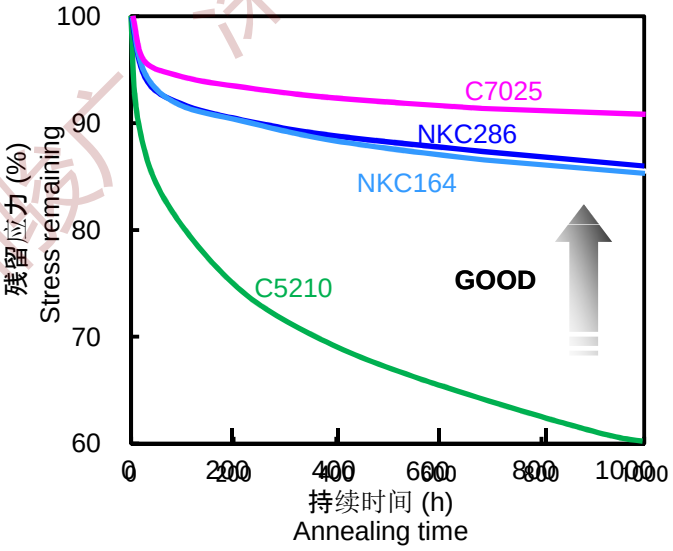


耐应力缓和试验 Stress relaxation resistance

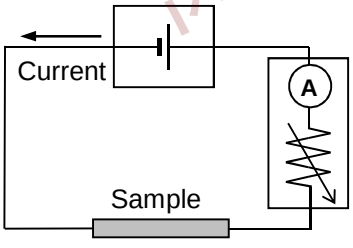
样品尺寸(Sample size):
0.2mmt×10mmw×25mml

试验温度(Test temperature):150℃

初期应力σ(Initial stress)
＝屈服强度σ_y(0.2% Yield strength) × 80%



通电时的温升 Temperature rise during electric conduction



样品尺寸(Sample size):
0.15mmt×1mmw×30mml

电流(Current):1・2・5A

电压(Voltage):12V