


Example of an Alliance LLC Process Control Plan for Sintered SmCo Magnets

 Control Plan CPN, Sintered SmCo Grade 2-17			Procedure#		ALC-QC-T-C704	Revision		1#
			Date		10/25/2008	Page		1
			Originator		JZ	Reviewed By		DV
			Approved By		MB	Control State		
Customer		Specification	P/N rev					
Inspection Name	Inspection Item	Inspection Standard	Equip/ Gages	Frequency/ Sample size	Reaction for Nonconformance	Result	Inspector	
Incoming inspection	Ni powder			1000g/lot	Reject	Incoming inspection record	incoming inspector	
	Powder	SmCo 2-17 Powder	BH tester	100g/lot	Reject			
Finished powder inspection	Magnetic properties	Hcj >20 kOe,	Flux meter, BH tester	4 pcs/lot	Notify the operator to correct it immediately, issue disqualification notice, and implement defective parts control procedure	Inspection record for finished powder, BH curve, Inspection record for rust, Certificate	Inspector for magnetic properties	
		Hcb>9 kOe						
		Br=9.6-11kGs						
		(BH)max >23MGOe						
Before-curing inspection	Unit weight	0.68-0.70g	mass scale	10 pcs/lot	Same as above	Inspection record before curing	Before curing inspector	
	Thickness	4.12/3.88mm	Micrometer					
	Appearance	1, No following defects on surface: lost edge/ angle, porosity, scratch, vein, crack 2, Curing tray should be clean, no powder adhering to trays and magnets before	Visual					
After-curing inspection	Length	6.11/5.88 mm	Micrometer	10pcs/lot	100% check the nonconformance item, others same as above	After curing inspection record	After curing inspector	
	T and W	4.11/3.88	Micrometer	10pcs/lot				
	Appearance	No lost edge/ angle, porosity, scratch, vein, crack, rust	Visual	10pcs/lot				
After-coating inspection	Length	6.12/5.88	Micrometer	AQL II -2.5	Same as above	After coating inspection record	Test room inspector	
	T and W	4.12/3.88	Micrometer	AQL II -2.5				
	Appearance	No leak plate, lost edge/angle, porosity, crack, protruding, rust, etc.	Visual	100%				
	Anticorrosion status	240hour, 85°C, 85%RH, no rust on the surface	H&T chamber microscope	4 pcs/shipping lot				
After-mag inspection	Magnetic properties	Retained samples	Flux meter	AQL II -2.5	Same as above	Final inspection record	Final inspector	
Revision	Date	Reviser	Content changed					