

ZANELLI			LAMINATING &. FINISHING LINE: MANUFACTURING &. INSPECTION PLAN (M.I.P.)					M-PRO-08 REV.6	dated 15/06/09
NO	PRODUCTION STEP	UNIT	REFERENCE DOCUMENTS	PARAMETERS TO BE CHECKED	CHECK METHOD &. INSTRUMENTS	ACCEPTANCE CRITERIA	CHECK FREQUENCY	CHECK REGISTRATION	NON CONFORMITY ACTION
1	Prime material acceptance	warehouse	P-ACQ-03	1 - check material conformity to reference documents (P.O., P.L., custom declaration etc.) as type, codes, quantity and size	visual	correspondance to be confirmed	all lots	M-ACQ-06	set aside and open Non Conformity Procedure (M-NCO-01)
			P-ACQ-03	2 - check quality certificates when required	visual	correspondance to be confirmed	upon request	collected in M-PRO-30 (file: "Raw Material Test Certificates")	
			P-ACQ-03	3 - packing conformity	visual	I-PRO-12		M-ACQ-06	
		laboratory	P-ACQ-03	1 - backing : dimensional control (thickness, lenght, visual)	I-PRO-10	report on I.PRO.10; M-PRO-30; M-PRO-17		M-PRO-35; M-PRO-17	
			P-ACQ-03	Tensile test	M-PRO-29 test no.12 (UNI EN 12068 appendix A)	M-PRO-20; M-PRO-30; M-PRO-17		M-PRO-17	
			P-ACQ-03	Hardness "Shore D"	M-PRO-29 test no..11 (ISO 868)	M-PRO-20; M-PRO-30; M-PRO-17	all lots	M-PRO-17	
			P-ACQ-03	recovered transv. &. Longitudinal shrinkage	M-PRO-29 test no.10 (JMQ 022)		M-PRO-35; M-PRO-17		
			P-ACQ-03	2 - adhesive : softening point	M-PRO-29 test no. (ASTM E 28)		M-PRO-34; M-PRO-17		
P-ACQ-03	shear strenght	M-PRO-29 test no. 4 (UNI EN 12068 appendix.D)	M-PRO-17						
2	Production start	Laminating line "A"	I-PRO-01	1. Temperatures: Extruders 1 e 2; Heated hoses ;nozzle ;ladle	incorporated thermocouple	I-PRO-11	at start-up	transferred on PLC and registered on M-PRO-06 (automatic)	
			I-PRO-01	2. Thickness	incorporated thickness gauges	I-PRO-10	at start-up	M-PRO-17	
3	Lamination of the adhesive	Laminating line "A"	I-PRO-01	1. Temperature: Extruders 1 e 2; Heated hose ; Nozzle, Ladle	incorporated thermocouple	I-PRO-11	once per hour	transferred on PLC and registered on M-PRO-06 (automatic)	
			I-PRO-01	2. Thickness	incorporated thickness gauges	I-PRO-10	once per hour	M-PRO-17	
4	Product change	Laminating line "A"	I-PRO-01	1. Temperature: Extruders 1 e 2; Heated hose ; Nozzle, Ladle	incorporated thermocouple	I-PRO-11	at product change	transferred on PLC and registered on M-PRO-06 (automatic)	
			I-PRO-01	2. Thickness	incorporated thickness gauges	I-PRO-10	at product change	M-PRO-17	

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5	Finished product (master roll) inspection	Laboratory	I-PRO-07	Visual & Dimensional	Visual & Dimensional	I-PRO-10	all lots	M-PRO-17		
				Adhesion to steel at +23°C and +50°C	M-PRO-29 test no. 3 (UNI EN 12068 appendix.C)	M-PRO-17		M-PRO-17		
				Impact	M-PRO-29 test no.1 (DIN 30672 - EN 12068 Appendix H)	M-PRO-36		M-PRO-36		
				Dielectric Strenght	M-PRO-29 test no. 1 (DIN 30672)	M-PRO-36		M-PRO-36		
				Cathodic Disbondment	M-PRO-29 test no. 9 (UNI EN 12068 appendix K)	M-PRO-37+ test pictures	upon request	M-PRO-37		
6	Master roll chopping as cut sleeve	Finishing line A5, B, F	I.PRO.02 (B); I.PRO.13 (A5); I.PRO.04 (F)	Lenght	I-PRO-02 (B); I-PRO-13(A5); I-PRO-04 (F)	I-PRO-02 (B); I-PRO-13(A5); I-PRO-04 (F)	indicati su M-PRO-9.1 (A5) e M-PRO.9.2 (B;F)	i primi 5 pezzi per ogni giorno di produzione,poi 1 ogni 40 pezzi	M-PRO-9.1 (A5); M-PRO.9.2 (B;F)	
7	Seal Patch	Finishing line B;F	I.PRO.02 (B); I.PRO.04 (F)	check presence of seal patch (if not pre-applied)	Visual	M-PRO-9.2 (B,F)	each production day: first 5 pieces and then 1 every 40 pieces	M-PRO.9.2 (B;F)	Add seal patch	
		Finishing line C;A5	I-PRO-03(C); I-PRO-13 (A5)	pre-applied patch: check bonding	Visual	M-PRO-9.3 (C) ; M-PRO-9.1 (A5)	each production day: first 5 pieces and then 1 every 40 pieces	M-PRO-9.3 (C) ; M-PRO-9.1 (A5)	Reject	
8	Preparation of epoxy resin in cans	Packing line E1/E2	I-PRO-09	1. Dosing	I-PRO-09	M-PRO-15/1 (resin A) M-PRO-15/2 (hardener B)	each production day: first 10 cans and then 1 every 100 cans	M-PRO-15/1 (RESINA); M-PRO-15.2 (CATALIZZATORE)	Scartare e regolare E1	
			I-PRO-09	2. Marking	Visual	M-PRO-15/1 (resin A) M-PRO-15/2 (hardener B)	each production day: first 10 cans and then 1 every 100 cans	M-PRO-15/1 (resin A) M-PRO-15/2 (hardener B)	Report on E/2	

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9	Preparation of the Apron	Line D	I-PRO-05	cycle of the press and roll lenght	Visual	as shown in "Dimensional Table no. 2"	all product	none	reject
10	Packing and warehousing	Finished products warehouse	MGQ/section 3; P-IDE-01; "Warehouse and Laboratory Map"	1.packing	Visual	All material shall be correctly packed and identified	all lots	nessuno	Correct packing
				2. Warehousing	Visual	Registration on M-MAG-01	all lots	M-MAG-01	up-date inventory chart

REMARK



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