



VR – Process 6 Revision History

Apply Glue to FR4 and HDPE

Date / Time	Rev	Author	Description
8/26/2017	A	FS	Original Version

Approvals

Rev	Approval	Customer	Engineering	Mechanical	Software	Mfg	OPS	QA	Test	Sales	Support	Corp
A	DT											
	Initial		FS									

1.0 Process Description

Description	Apply Glue to FR4 and HDPE
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VR Part Number	VR1
Customer Part Number	355467-01
Configuration	Standard
Model	SRA-16(20x69]
Process Number	VR102601-06
Process Standard	

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2. Setup

2.1 Technician




Tech #	Certification Required	Skill	Process	Safety
1	No	Adhesive applicator	Yes	Yes

2.2 Tools

2.2.1 Calibrated Tools




Number	Tool	Description	Rev	Specification	Calibration Requirements	Image

2.2.2 Non-Calibrated Tools


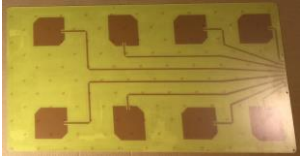

Number	Tool	Description	Rev	Specification	Requirements	Image
1	Compressor Pressure Gauge	Pressure gauge used to control pressure inside Air Agitated Pressure Tank	1	Pressure controlled at 70PSI	Check pressure every time production starts	
2	Teflon Coated Spray Gun	Spray gun used to add adhesive to FR4 and HDPE	1	Adhesive Gun Spray Fluid Flow Measurement	Adhesive Gun Spray Fluid Flow Measurement (Pressurize fluid source only; pull trigger, flow material into measuring device for 60 seconds, increase or decrease fluid source pressure to obtain desired fluid flow.)	
3	FR4 to HDPE Gluing Fixture	Used to prevent adhesive from being sprayed on HDPE corners.	1	FR4 to HDPE Assembly Fixture	Check if fixture side, in contact with HDPE, is free of adhesive and debris. To remove excess adhesive or debris, use M-4, M-5 and M-6.	

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4	Air Agitated Pressure Tank	5 Gallon Pressure Pot, Steel Teflon Coated, 29 x 18 x 16 (51-504)	1	Adhesive pressure controlled at 70PSI	Check pressure every time production starts. Maximum pressure allowed is 80PSi	
5	Adhesive Gun Spray Air Compressor	Air compressor for adhesive application	1	Min 5HP and 17CFM	Check if compressor is running and full of air every time production starts	
6	Hose Set	Hose set for adhesive and air application	1	Set 25', 16 CFM, 5/16" air and 3/8" fluid. AFS-1142	Hoses need to be attached to the agitator tank.	

2.3 Materials

#	VR Part Number	Mfg Part #	Manuf	Description	Qty	Requires Serial #	Size	Tolerance	COC Req	Lot Req	Incoming QA Req	Image
1	VR102656	3M - 4693	3M	High performance 3M Adhesive	1	N	See BOM	N/A	Y	Y	N	
2	VR102651		VR	FR4 Sheet (21"x48")	2	N	See Drawing	See Drawing	Y	Y	N	
3	VR102681		VR	3/8 HDPE – Front Side	1	N	See Drawing	See Drawing	Y	Y	Y	

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4	VR102694	3125	Pure Tronics	Isopropyl Alcohol	1	N	N/A	N/A	N	N	N	
5	VR102695	02120 0- 21429		3M Scotch Weld No.2 Solvent	1	N	N/A	N/A	N	N	N	
6	VR102696	S- 13631 BLU	Uline	Heavy-Duty Wipers or Micro Fiber Towels	1	N	N/A	N/A	N	N	N	



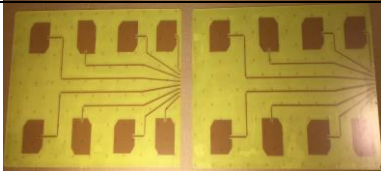
2.4 References

Number	VR Doc Number	Rev	Description	Manuf	Directory
1	VR102651	1	FR4 Drawing		VR102651_BDFR4_REV1.PDF
	VR102652	1	3/8" HDPE drawing		VR102652_BDHDPE_REV1.PDF

2.5 Safety

Number	Type	Description	Reference
1	Ventilation	Area needs to be well ventilated where adhesive is to be applied	Refer to MSDS
2	Dust Masks or Respirators	Use of respirator while applying adhesive is required	Refer to MSDS

3.0 Procedure

Step	Tech	Tool	Material	Tasks description	Reference Drawing	Image
1	1	NC-4 or NC-5 and NC-6	M-1, M-2 and M-3	Surface Preparation (Surfaces must be dry and free of dust, dirt, grease, oil, mold release materials and other contaminants.)		
2	1	C-3	M-3	Place FR4 gluing fixture on top of HDPE Panel to prevent excess glue from reaching beyond the FR4 routed area.		
3	1	C-2, C3, C-4	M-1, M-3	Apply even coat of adhesive to HDPE, starting from the mux board side and making your way up, left to right, covering the area where the panel surfaces will be in contact with the FR4 panel.		
4	1	C-2, C4	M-1, M-3	Apply even coat of adhesive to the back of the FR4 panel, starting from the mux board side and making your way up, left to right, covering the entire back of the panel.		
5	1	N/A	N/A	Check if adhesive was applied evenly on all surfaces. If more adhesive is needed, reapply.		

4.0 Process Recording

Step	Tasks description	Reference Drawing / Image
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4.0 Non Compliance

#	Non Compliance	Disposition	Reference Drawing / Image