



HPNW
HEALTH PHYSICS NORTHWEST

April 8, 2022

Sarah Precise
President of Operations
Trivitron Imaging Solutions
DBA: Kennedy Vinyl
11665 Alabama Highway 79
Scottsboro, Alabama 35768

Dear Sarah:

Enclosed are the attenuation and lead equivalency results for the samples that were recently submitted to Health Physics Northwest. At your request, all tests were conducted in accordance with ASTM test Method F2547-18. The documentation on the following pages contains all of the information regarding this testing.

If you have any questions, please contact our office.

Sincerely,

Matt Brien, BS
Medical Physicist

Encl.

cc: Kenneth Precise

ASTM test Method F2547 - 18 14.2.1 Test Information

Date of Testing	April 8, 2022
Place of Testing	Health Physics Northwest
Name of Individual Performing the Testing	Matt Brien, BS Health Physics Northwest
Manufacturer / Model of X-ray Generator	Del Medical / VZW2556RB3-A3
Manufacturer / Model of X-ray Tube	Varex Imaging Corporation / A-192

Testing Parameters

Set kVp	89	99
Measured kVp	90.1	100.0
mAs	40	32
Half-Value Layer (mm Al)	4.28	5.17

All exposure and kVp measurements performed with an Unfors RaySafe X2 R/F sensor, Serial No.: 245885 calibrated August 24, 2020.

ASTM test Method F2547-18 14.2.2 Sample Identification

Sample Designation	1
Product	ULW .125 (1 Layer)
Weight/Target	1500
Gauge	15
Manufacture Date	3/23/2022
Sample Designation	2
Product	ULW .125 (2 Layers)
Weight/Target	1502-1502
Gauge	15-15
Manufacture Date	3/23/2022
Sample Designation	3
Product	ULW .250 (2 Layers)
Weight/Target	2856-2863
Gauge	30.5-31
Manufacture Date	3/21/2022
Sample Designation	4
Product	ULW .250 (2 Layers)
Weight/Target	2904-2904
Gauge	31.5-32
Manufacture Date	3/21/2022
Sample Designation	5
Product	ULW .250 (2 Layers)
Weight/Target	2951-2953
Gauge	32-31.5
Manufacture Date	3/21/2022
Sample Designation	6
Product	VL-250 (2 Layers)
Weight/Target	3456-3457
Gauge	33-33
Manufacture Date	3/22/2022
Sample Designation	7
Product	VL-375 (2 Layers)
Weight/Target	34.51-17.55
Gauge	35.5-15
Manufacture Date	2/28/2022

ASTM test Method F2547-18 14.2.3 Test Results

		Attenuation	
Sample	Layers	90 kVp	100 kVp
1	1	76.2%	71.0%
2	2	90.2%	86.6%
3	2	97.0%	95.4%
4	2	97.1%	95.5%
5	2	97.2%	95.7%
6	2	96.9%	95.5%
7	2	94.6%	92.5%

		Lead Equivalency (mm Pb)	
Sample	Layers	90 kVp	100 kVp
1	1	0.13	0.13
2	2	0.26	0.26
3	2	0.53	0.51
4	2	0.53	0.51
5	2	0.54	0.53
6	2	0.51	0.52
7	2	0.38	0.38