

TEST REPORT

Date of Report: 11/8/2018

Project ID / Job Number: 162459

Client: **Alien Technology Corporation**

Address: **18220 Butterfield Blvd
Morgan Hill, CA 95037 USA**

Model Identification: **ALN-98xx, ALN-97xx, ALN-96xx**

Item Description: White Wet Inlays

Number of Samples Submitted: 3

Additional Information: None

Test Parameters: **Multiple Parameters Cal Prop 65**

Date Received: 10/10/2018

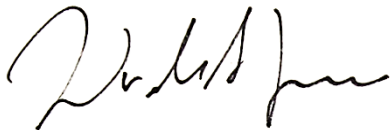
Testing Period: 10/24/2018 – 11/8/2018

Delivery Condition: *Apparent Good*

Testing Location: TÜV Rheinland of North America
2709 SE Otis Corley Dr, Suite 11
Bentonville, AR 72712 USA

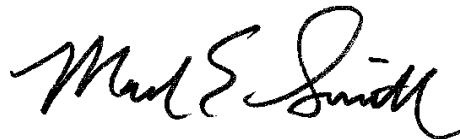
Other Aspects: N/A

Test Report Compiled by:



William Tyree / Senior Chemist

Test Report Reviewed by:



Mark Smith / Laboratory Manager

Test result is drawn according to the kind and extent of tests performed. This test report is not permitted to be duplicated in extracts without permission of the test facility. This test report does not entitle any safety mark on this or similar products.

Test Parameters:

Test Specification
1. Total Lead Content in Substrates and Coatings – Cal Prop 65
2. Total Cadmium Content in Substrates and Coatings – Cal Prop 65
3. Total Phthalate Content – Cal Prop 65
4. Bisphenol A (BPA) – Cal Prop 65

Test Results:

Material Breakdown - Chemical Testing

Material No.	Material	Color	Component / Location
1	1	White	Strip
2	2	White	Backing
3	3	Silver	Inlay

RESULTS

1. TOTAL LEAD CONTENT IN SUBSTRATES(XRF):

Per client request, the samples were evaluated for total lead content with reference to Cal Prop 65 and client specifications. Any concentrations above 100 ppm will be **noted**.

Test method: The sample was analyzed by X-Ray Fluorescence Spectroscopy (XRF) with reference to CPSC-CH-E1002-08.3 / CPSC-CH-E1001-08.3

Test No.	Material or Component	Lead Content (mg/kg)
		MDL: 5 mg/kg
1	1	<5 mg/kg
2	2	<5 mg/kg
3	3	<5 mg/kg

Abbreviation: MDL = Method Detection Limit mg/kg denotes milligram per kilogram (ppm)

2. TOTAL CADMIUM CONTENT IN SUBSTRATES (XRF):

Per client request, the samples were evaluated for total cadmium content with reference to Cal Prop 65 and client specifications. Any concentrations above 75 ppm will be **noted**.

Test method: The sample was analyzed by High Definition X-Ray Fluorescence Spectroscopy (HD-XRF) with reference to ASTM F2617

Test No.	Material or Component	Cadmium Content (mg/kg)
		MDL: 5 mg/kg
1	1	<14.5 mg/kg
2	2	<14.5 mg/kg
3	3	<26.4 mg/kg

Abbreviation: MDL = Method Detection Limit mg/kg denotes milligram per kilogram (ppm)

3. PHTHALATE CONTENT IN SUBSTRATES:

Per client request, the samples were evaluated for total phthalate content with reference to Cal Prop 65 and client specifications. Any concentrations above 1000 ppm (0.1%) will be **noted**.

Test method: The sample was analyzed by organic solvent extraction and GCMS according to CPSC-CH-C1001-09.4

Test No.	Material or Component	MDL: 0.005%					
		BBP (%)	DBP (%)	DEHP (%)	DINP (%)	DIDP (%)	DnHP (%)
1	1,2,3	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%

Abbreviation: MDL = Method Detection Limit mg/kg denotes milligram per kilogram (ppm)

DBP = Dibutyl phthalate
 BBP = Butyl benzyl phthalate
 DnHP = Di-n-hexyl phthalate

DEHP = Di-2-ethylhexyl phthalate
 DIDP = Di-iso-decyl phthalate
 DINP = Di-iso-nonyl phthalate

4. TOTAL BISPHENOL-A CONTENT:

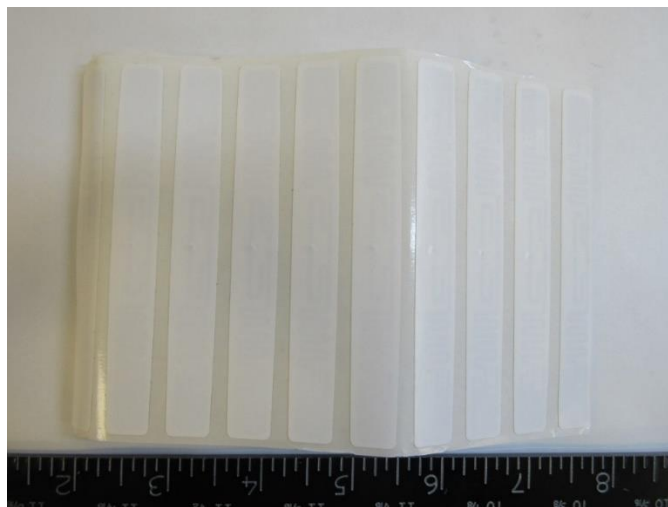
Per client's request, the product was analysed for detectable amounts of Bisphenol A (BPA). Results exceeding 25 mg/kg are indicated in red.

Test method: The samples were analyzed by appropriate in-house methods and Liquid Chromatography with Mass Spectrometer.

Test No.	Material or Component	BPA Content (mg/kg)
		MDL: 10 mg/kg
1	1	<10 mg/kg
2	3	<10 mg/kg

Abbreviation: MDL = Method Detection Limit mg/kg denotes milligram per kilogram (ppm)

Sample Photos:



Test Article(s)

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