

# **TEST REPORT**

Date of Report: 10/24/2018

Project ID / Job Number: 162459

Client: Alien Technology Corporation

Address: 18220 Butterfield Blvd

Morgan Hill, CA 95037 USA

Model Identification: EC ALC-380

Item Description: Component

**Number of Samples** 

Submitted:

1

Additional Information: None

Test Parameters: Multiple Parameters Cal Prop 65

Date Received: 8/4/2015

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

Delivery Condition: Apparent Good

TÜV Rheinland of North America

Testing Location: 2709 SE Otis Corley Dr, Suite 11

Bentonville, AR 72712 USA

Other Aspects: N/A

Test Report Compiled by:

Test Report Reviewed by:

William Tyree / Senior Chemist

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
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	8	Pink/Gray	Disk	

#### **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

			Lead Content (mg/kg)
Tes	st No.	Material or Component	MDL: 5 mg/kg
	1	8	<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

		Cadmium Content (mg/kg)		
Test No.	st No. Material or Component	MDL: 5 mg/kg		
1	8	<13.2 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	Material or	MDL: 0.005%					
No.	Component	BBP (%)	DBP (%)	DEHP (%)	DINP (%)	DIDP (%)	DnHP (%)
1	8	<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

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.

Toot No.	Matarial or Component	BPA Content (mg/kg)		
Test No.	Material or Component	MDL: 10 mg/kg		
1	8	<10 mg/kg		

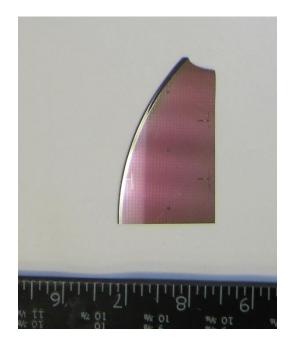
Abbreviation:

MDL = Method Detection Limit

mg/kg denotes milligram per kilogram (ppm)

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# **Sample Photos:**



Test Article(s)

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