

TEST REPORT

Date of Report: 3/27/2020

Project ID / Job Number: 234121743

Client: **Patrick Jarvis**
Inktek, LLC
W6501 Design Drive, Unit B
Greenville, WI 54942
Address: **Phone: 920-202-3840, Fax: 920-202-3843**
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Model Identification: **See Material List**

Item Description: Bases

Number of Samples Submitted: 15

Additional Information: Client Number: 50006873, PO Number: 2594

Test Parameters: **Multiple Parameters**

Date Received: 2/18/2020

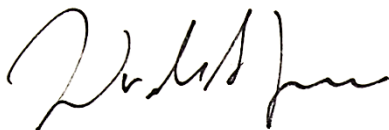
Testing Period: 3/13/2020 – 3/27/2020

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:



Amy Yearry / 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	Test Result
1. Total Lead Content in Surface Coatings – CPSIA	Pass
2. Total Heavy Metals in Surface Coatings – ASTM F963-16	Pass
3. Soluble Heavy Metals in Surface Coatings – ASTM F963-16	Pass
4. Total Phthalate Content – CPSIA	Pass

Test Results:

Material Breakdown List - Chemical Testing

Material No.	Material	Color	Component/Location
1	Base	White	HS Base
2	Base	White	HO Base
3	Base	White	SO Base
4	Base	White	NM Base
5	Base	White	Puff Base
6	Base	White	LB Base
7	Base	White	Bright Base
8	Base	White	Prem White Base
9	Base	White	Snow Base
10	Base	White	Pro Base
11	Base	White	QF Base
12	Base	White	Poly Base
13	Base	White	Met Base
14	Base	White	F Base
15	Base	White	P Base

RESULTS

1. TOTAL LEAD CONTENT IN SURFACE COATINGS:

The product shall comply with the Consumer Product Safety Act (CPSA) Regulations, 16 CFR 1303 and Consumer Product Safety Improvement Act (CPSIA). Surface coatings on toys and other articles intended for children shall not have total lead content in excess of 0.009 % (90 ppm).

Test method: The sample was digested with acid using microwave digestion techniques. Lead content – analyzed by Inductively Coupled Plasma – Mass Spectrometer (CPSC-CH-1003-09.1).

Test No.	Material or Component	Lead Content (mg/kg)	Maximum Permissible Limit 90 mg/kg (Pass/Fail)
		MDL: 5 mg/kg	
1	1,2,3	<5 mg/kg	Pass
2	4,5,6	8.5 mg/kg	Pass
3	7,8,9	5.1 mg/kg	Pass
4	10,11,12	<5 mg/kg	Pass
5	13,14,15	10.6 mg/kg	Pass

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

2. TOTAL HEAVY METALS IN SURFACE COATINGS:

The product shall comply with the requirements for the content of soluble heavy metals in accessible surface coatings as defined in ASTM F963-08 and ASTM F963-16, Specification for Toy Safety. The material may be evaluated by analysis of total element content screening to preclude the need for soluble analysis.

Test Method: Samples were digested and analyzed by Inductively coupled plasma - mass spectrometer according to CPSC-CH-1003-09.1 for total heavy metal content.

Test No.	Material No.	[mg/kg]							Pass/Fail
		Sb	As	Ba	Cd	Cr	Hg	Se	
		Maximum Permissible Limit							
		60	25	1000	75	60	60	500	
		MDL (mg/kg)							
		10	5	200	5	5	5	5	
1	10,11,12	25.8	<5	<200	<5	<5	<5	<5	Pass

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

3. SOLUBLE HEAVY METALS IN SURFACE COATINGS:

The product shall comply with the requirements for the content of soluble heavy metals in surface coatings as defined in ASTM F963-16, Toy Standard.

Test method: Samples were put in contact with dilute hydrochloric acid and analyzed by Inductively coupled plasma - Optical emission spectrophotometer according to ASTM F963-16, Sections 8.3.2 - 8.3.4

Test No.	Material No.	[mg/kg]							Pass/Fail
		Sb	As	Ba	Cd	Cr	Hg	Se	
		Maximum Permissible Limit							
		60	25	1000	75	60	60	500	
		MDL (mg/kg)							
		2.5	2.5	2.5	2.5	2.5	2.5	2.5	
1	1	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
2	2	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
3	3	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
4	4	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
5	5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
6	6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
7	7	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
8	8	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
9	9	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
10	13	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
11	14	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass
12	15	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	Pass

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

4. TOTAL PHTHALATE CONTENT IN SUBSTRATES:

The CPSC prohibits children's toys and child care articles from containing concentrations of more than 0.1 percent of five phthalate chemicals, specifically diisononyl phthalate (DINP), diisobutyl phthalate (DIBP), di-n-pentyl phthalate (DPENP), di-n-hexyl phthalate (DHEXP), and dicyclohexyl phthalate (DCHP). Three phthalate chemicals, specifically di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), and benzyl butyl phthalate (BBP), under the CPSIA remains in full force and effect.

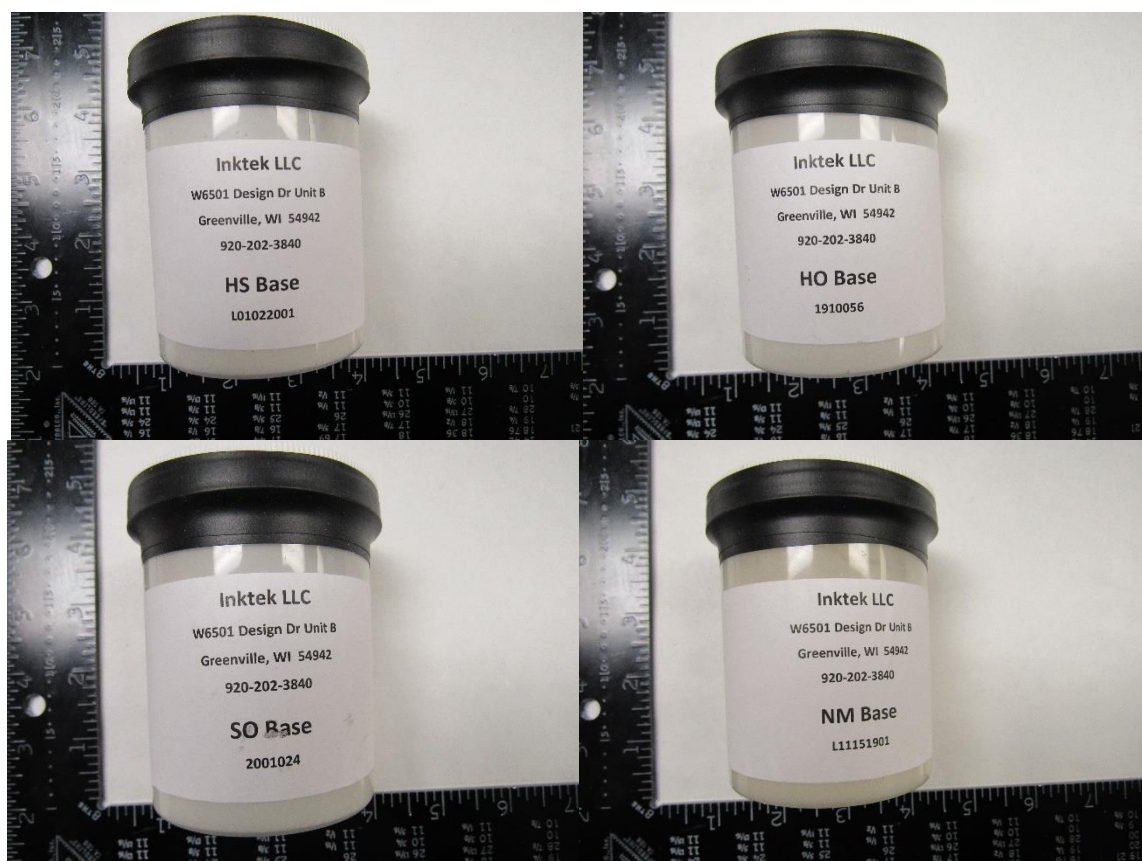
Test method: The sample was analyzed by organic solvent extraction and GCMS according to CPSC-CH-C1001-09.4

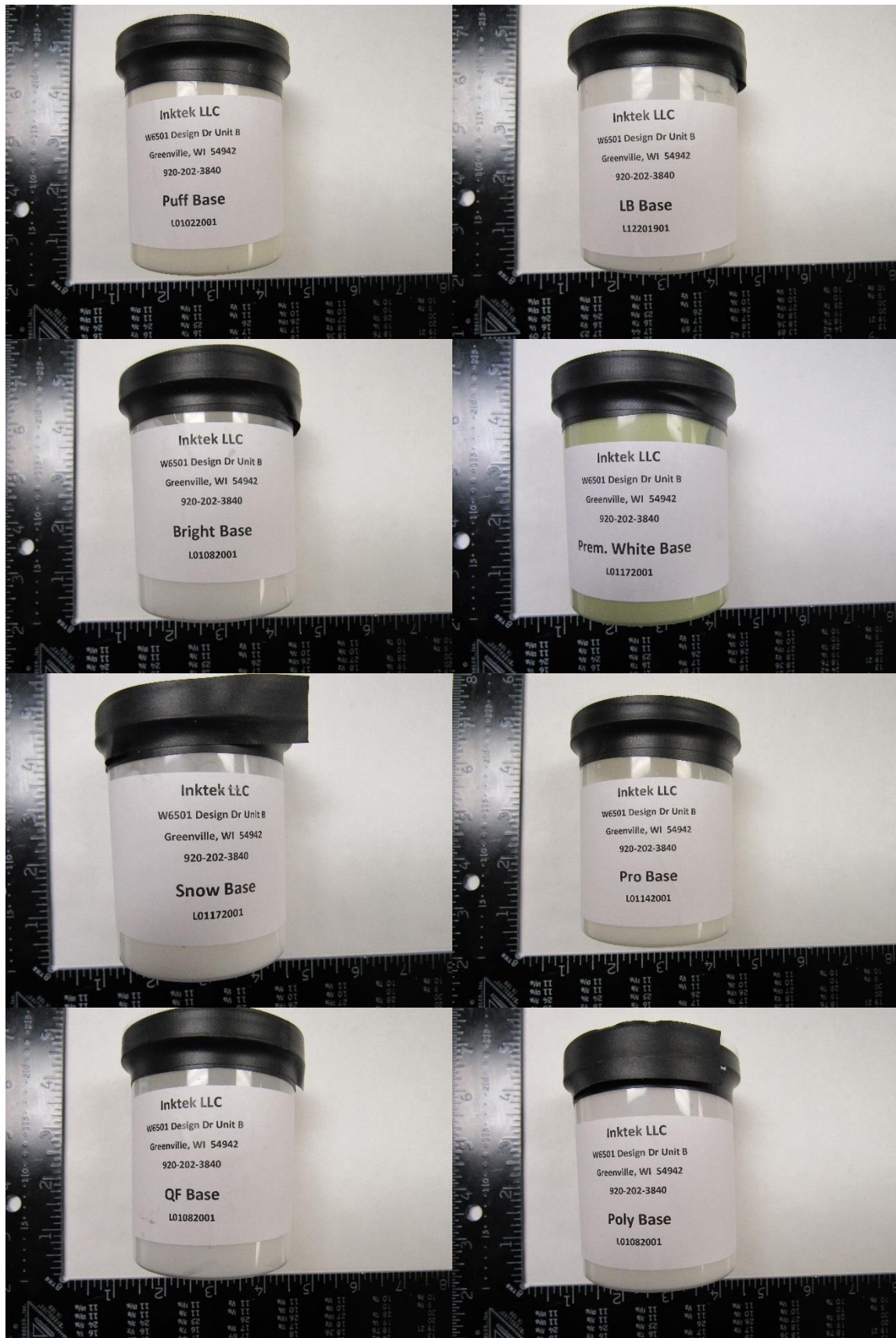
Test No.	Material	MDL: 0.005%								Maximum Permissible Limit 0.100 % (Pass/Fail)
		DiBP (%)	DBP (%)	DPENP (%)	DnHP (%)	BBP (%)	DEHP (%)	DCHP (%)	DINP (%)	
1	1,2,3	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	Pass
2	4,5,6	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	Pass
3	7,8,9	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	Pass
4	10,11,12	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	Pass
5	13,14,15	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	<0.005%	Pass

Abbreviation: MDL = Method Detection Limit
BBP = Benzyl butyl phthalate
DEHP = Di-(2-ethylhexyl) phthalate
DIBP = Diisobutyl phthalate
DCHP = Dicyclohexyl phthalate

DBP = Dibutyl phthalate
DPENP = Di-n-pentyl phthalate
DINP = Diisononyl phthalate
DHEXP/DnHP = Di-n-hexyl phthalate

Sample Photos:







Test Article(s)

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