THE STANDARDS INSTITUTION OF ISRAEL

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Test Certificate 9912208809/1

Issued under Section 12 of the Standards Law, 1953

Details of order:

Order name: Polyraz industries

Address: Maoz Haim 10845, ISRAEL

Date order: 14-Aug-19

Sample Description As Declared:

Products: PS

Sampled by: Customer

Sample received in lab: 14-Aug-19

Testing time: From: 15-Aug-19 to 29-Aug-19
Test requested: Selected test(s) as requested by client

Test method: Please refer to next page(s)
Test results: Please refer to next page(s)

This document contains 3 pages and may be used only in full.

The test results in this document refer only to the item tested.

This document does not constitute a license to mark the product with the standards mark

Conclusion:

For compliance with EU Regulation 10/2011 as amended and Israel Standard SII 5113

1. Overall migration of extractives from packaging using solvents simulating types of foodstuffs Comply

2. Specific migration of heavy metals according to Regulation (EU) 10/2011 Comply

3. Specific migration of primary aromatic amines (PAA) according to Regulation (EU) 10/2011

4. U.S. Food and Drug Administration 21 CFR 175.300- "Resinous and polymeric coatings" Comply

5. Determination of Total Lead (Pb), Cadmium (Cd), Mercury (Hg) and Chromium (Cr) according Comply

to European directive 94/62/EC.

Comply

Certified by:

Gadi Efrati

Head of Food Contact Material Section

Naor Cohen

Acting Head of chemistry Food and Water Branch

ANAB



TESTING LABORATORY

Certificate Number: AT-2045

Date: 16/09/2019



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Description: PS Sheet and thermoforming products from it, PS is food contact layer.

Aqueous and alcoholic foodstuffs, acidic, oily, milk products and dry food products for hot fill conditions at a temperature between 70°C for 2 hours, or heating up to 100°C for up to 15 minutes and also for prolonged storage at 40°C and refrigerated storage.

1- Overall Migration Protocol

Selection of test conditions as specified to Regulation 10/2011 Annex III, V;

Selection of test method: EN 1186-1

Tested sample	Food Simulants	Test conditions	Extractives, mg/sq. dm	Limit, mg/sq. dm
PS	A (Ethanol 10%)	10 days at 40°C	1.4	10
PS	B (Acetic acid 3%)	10 days at 40°C	<1	10
PS	D2 (Olive Oil)	10 days at 40°C	<1	10

2-Specific migration of metals according to Regulation (EU) 10/2011

Selection of test method: EN 13130-1 and sample preparation in 3 w/w % acetic acid at 40°C for 10 days

Method: ICP-AES (inductively argon coupled plasma emission spectroscopy)

Method: 161 1125 (maderivery argon coupled plasma emission spectroscopy)					
Soluble metal	SML, ppm	MDL, ppm	Results, ppm		
Barium	1	0.1	ND		
Cobalt	0.05	0.05	ND		
Copper	5	0.1	ND		
Iron	48	1	ND		
Lithium	0.6	0.1	ND		
Manganese	0.6	0.1	ND		
Zinc	25	0.5	ND		
Aluminum	1	0.1	ND		
Nickel	0.02	0.01	ND		

Note:

ppm=mg/kg (1,000 ppm=1,000 mg/kg=0.1%); SML = Specific Migration Limit;x

ND= Not Detected (<MDL); MDL=Method Detection Limit;

3- Specific migration of Primary aromatic amines (PAA)- according to Regulation (EU) 10/2011						
As specified in Regulation (EU) No. 10/2011 ANNEX III and V. Method: In-house method						
Tested sample	Food Simulants	Test conditions	Extractives, mg/kg	Limit, mg/kg		
PS	Acetic acid 3%	10 days at 40°C	ND	0.01		

4- Total Extractives –21 FDA 175.300 As specified in U.S Food and Drug Administration 21 FDA 175.300 table 2 condition of use: E **Tested sample Simulants Test conditions** Extractives, mg/in² Limit, mg/in² PS Distilled water 24 hours 120 deg. F 0.5 < 0.1 PS Heptane 30 minutes at 70 deg. F < 0.1 0.5 PS Ethanol 8% 24 hours at 120 deg. F < 0.1 0.5

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5. <u>Lead, cadmium, mercury, hexavalent chromium</u> Content in PS Sheet

Test Method: Laboratory Standard Operating Procedures in the determination of: Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr (VI)) By direct X-ray Fluorescence Spectrometry (XRF) Screening.

Element tested	Limit, ppm	Results, ppm
Lead (Pb)	-	17
Cadmium (Cd),	-	<5
Mercury (Hg)	-	<5
Hexavalent Chromium (Cr (VI))	-	<5
Sum of (Pb), (Cd), (Hg), (Cr (VI))	100	<32

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