



**Test Certificate 9912208803**

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:	MLPPDF CC
<b>Sampled by:</b>	<b>Customer</b>
Sample received in lab:	14-Aug-19
Testing time:	From: 15-Aug-19 to 08-Sep-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)

<p><b>This document contains 3 pages and may be used only in full.</b></p>	<p><b>The test results in this document refer only to the item tested.</b></p>	<p><b>This document does not constitute a license to mark the product with the standards mark</b></p>
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**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	Comply
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 Hexavalent Chromium (Cr (VI)) according 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

Date: 10/09/2019



Certificate Number: AT-2045

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**Description:** MLPPDF CC Sheet and thermoforming products from it, PP 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 below (refrigerated and deep-frozen 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
MLPPDF CC	A (Ethanol 10%)	10 days at 40°C	<1	10
MLPPDF CC	B (Acetic acid 3%)	10 days at 40°C	5.6	10
MLPPDF CC	D2 (Olive oil)	10 days at 40°C	2.8	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)

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	0.7
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 (&lt;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
MLPPDF CC	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: C

Tested sample	Simulants	Test conditions	Extractives, mg/in <sup>2</sup>	Limit, mg/in <sup>2</sup>
MLPPDF CC	Distilled water	Fill boiling cool to 100 deg. F	0.1	0.5
MLPPDF CC	Heptane	15 minutes at 120 deg. F	<0.1	0.5
MLPPDF CC	Ethanol 8%	2 hours at 150 deg. F	0.2	0.5

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**5. Lead, cadmium,mercury, hexavalent chromium Content in MLPPDF CC 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.*

<i>Element tested</i>	<i>Limit, ppm</i>	<i>Results, ppm</i>
<i>Lead (Pb)</i>	-	<5
<i>Cadmium (Cd),</i>	-	16
<i>Mercury (Hg)</i>	-	<5
<i>Hexavalent Chromium (Cr (VI))</i>	-	<5
<i>Sum of (Pb), (Cd), (Hg), (Cr (VI))</i>	100	<31

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