Test Certificate No.7312204819

Issued under Section 12 of the Standards Law, 1953

Details of order:

Name of customer:	HOFIT BY HULIOT GROUP LTD
Address:	Kibbutz Kinneret, 15118
Date order:	08-May-23

Sample Description as Declared:

Products:	LDPE BLACK – see in annex I
Manufacturer:	ELEX
Sampled by:	**Customer**

Sample received in lab:	08-May-23
Testing time:	from: 08-May-23 to: 16-May-23
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)

Nature of the test:

For compliance with EU Regulation 10/2011 as amended and with the requirements of Israeli Standard SI 5113 – "Plastic materials and plastic articles in contact with food and beverages", Jan 2019

This document contains 5 pages and may use 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:

1. Overall migration according to Regulation (EU) 10/2011	Comply
2. Specific migration of primary aromatic amines (PAAs) according to Regulation (EU) 10/2011 and Regulation (EU) 1245/2020	Comply
3. Specific migration of substances according to annex II, Regulation (EU) 10/2011 and Regulation (EU) 1245/2020	Comply

*Rule of decision considering the uncertainty of the test based on the clause in the relevant standards.

Certified by:

Gadi Efrati
Head of Food Contact Materials Section

Evyatar Elmaleh
Practical Engineer

Date:16/05/2023

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Description: *LDPE BLACK*
Any long-term storage at room temperature or below and high temperature applications up to 121 °C.

1- Overall Migration Protocol **-OM5- single use test**

Selection of test conditions as specified to Regulation 10/2011 Annex III, V;
Selection of test method: EN 1186-1. **S/V = 1dm^2/100ml**

Tested sample	Food Simulants	Test conditions	Result, mg/sq. dm	Limit, mg/sq. dm
ELEX LDPE BLACK	*A- Ethanol 10%*	*2 hours at 100^{o}C*	*<1*	*10*
ELEX LDPE BLACK	*B- Acetic acid 3%*	*2 hours at 100^{o}C*	*<1*	*10*
ELEX LDPE BLACK	*D2- Ethanol 95 %*	*4 hours at 60^{o}C*	*<1*	*10*
ELEX LDPE BLACK	*D2- Isooctane*	*2 hours at 60^{o}C*	*2.1*	*10*

The sample investigated for the overall migration into 95% Ethanol and Isooctane according to the EN 1186-14

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2- Specific migration of Primary aromatic amines (PAAs)- according to Regulation (EU) 10/2011(*)				
Method: UNI EN 13130-1:2005 + JRC-IHCP EU RL-FCM Aromatic amines Protocol A Ed.1 2011 (LCMS) **Test conditions**: Acetic acid 3% - 100°C for 2 hours.				
Chemical parameters	***CAS Number***	***Limit, mg/kg***	***MDL, mg/kg***	***Results, mg/kg***
Specific migration of sum of Primary aromatic amines	*-*	*0.01*	*0.002*	*<0.01*
2,2'-dichloro-4,4'-methylenedianiline (MOCA)	*101-14-4*	*<0.002*	*0.002*	*ND*
2,4,5-trimethylaniline	*137-17-7*	*<0.002*	*0.002*	*ND*
2-Methoxyaniline, o-Anisidine	*90-04-0*	*<0.002*	*0.002*	*ND*
2-naphthylamine	*91-59-8*	*<0.002*	*0.002*	*ND*
3,3'-dichlorobenzidine 3,3'-dichlorobiphenyl-4,4'-ylenediamine	*91-94-1*	*<0.002*	*0.002*	*ND*
3,3'-dimethoxybenzidine o-dianisidine	*119-90-4*	*<0.002*	*0.002*	*ND*
3,3'-dimethylbenzidine 4,4'-bi-o-toluidine	*119-93-7*	*<0.002*	*0.002*	*ND*
4,4'-methylenedi-o-toluidine	*838-88-0*	*<0.002*	*0.002*	*ND*
4,4'-oxydianiline	*101-80-4*	*<0.002*	*0.002*	*ND*
4,4'-thiodianiline	*139-65-1*	*<0.002*	*0.002*	*ND*
4,4'-Methylenedianiline (MDA)	*101-77-9*	*<0.002*	*0.002*	*ND*
4-Aminoazobenzene	*60-09-3*	*<0.002*	*0.002*	*ND*
4-chloro-o-toluidine	*95-69-2*	*<0.002*	*0.002*	*ND*
4-chloroaniline	*106-47-8*	*<0.002*	*0.002*	*ND*
4-methoxy-m-phenylenediamine	*615-05-4*	*<0.002*	*0.002*	*ND*
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	*95-80-7*	*<0.002*	*0.002*	*ND*
5-nitro-o-toluidine	*99-55-8*	*<0.002*	*0.002*	*ND*
6-methoxy-m-toluidine (p-cresidine)	*120-71-8*	*<0.002*	*0.002*	*ND*
Benzidine	*92-87-5*	*<0.002*	*0.002*	*ND*
4-aminobiphenyl	*92-67-1*	*<0.002*	*0.002*	*ND*
o-aminoazotoluene,4-amino-2',3-dimethylazobenzene,4-o-tolylazo-o-toluidine	*97-56-3*	*<0.002*	*0.002*	*ND*
o-toluidine,2-aminotoluene	*95-53-4*	*<0.002*	*0.002*	*ND*
ND= Not Detected (<MDL); MDL=Method Detection Limit;				

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3- Specific migration of substances according to Regulation (EU) 10/2011 and Regulation (EU) 1245/2020

Selection of test method: EN 13130-1 and sample preparation in acetic acid 3% v/v at 100°C for 2 hours. As specified in Regulation (EU) No. 10/2011 ANNEX II. Method: ICP-MS

Substances	*SML, mg/kg*	*MDL, mg/kg*	*Results, mg/kg*
Aluminum (Al)	*1*	*0.002*	*ND*
Antimony (Sb)	*0.04*	*0.0025*	*ND*
Arsenic (As)	*0.01*	*0.002*	*ND*
Barium (Ba)	*1*	*0.0020*	*ND*
Cadmium (Cd)	*0.002*	*0.002*	*ND*
Chromium (Cr)[1]	*0.002*	*0.002*	*ND*
Cobalt (Co)	*0.05*	*0.002*	*ND*
Copper (Cu)	*5*	*0.100*	*ND*
Zinc (Zn)	*5*	*0.100*	*ND*
Iron (Fe)	*48*	*0.2*	*ND*
Lead (Pb)	*0.01*	*0.002*	*ND*
Lithium (Li)	*0.6*	*0.01*	*ND*
Manganese (Mn)	*0.6*	*0.01*	*ND*
Mercury (Hg)	*0.002*	*0.002*	*ND*
Nickel (Ni)	*0.002*	*0.002*	*ND*
Terbium (Tb)[2]	*0.05*	*0.005*	*ND*
Lanthanum (La)[2]			
Europium (Eu)[2]			
Gadolinium (Gd)[2]			

Note: ppm=mg/kg (1,000 ppm=1,000 mg/kg=0.1%); SML = Specific Migration Limit;
ND= Not Detected (<MDL); MDL=Method Detection Limit;

1. *Less stringent limit of 3.6 mg/kg applies if pre-existing documentation demonstrates Cr (VI) is excluded.*
2. *Lanthanide substances can be used according to Article 6(3)(a) subject to SML is no more than 0.05 mg/kg for the sum of all lanthanide substances and the analytical evidence using a procedure demonstrating the lanthanide substance(s) used are present in dissociated ionic form in food or food simulant forms part of the documentation in Article 16.*

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Annex I:

Products tested	***Picture***
ELEX LDPE BLACK