



TEST REPORT NO 699713/23/POZ/1

Client FOLPLAST SP. Z O. O. SKŁADOWA 2A 64000 KOŚCIAN		Sample (according to declaration of Client) Sample description: PE foil transparent - colored (1/079283)	
Sample reception date:	18.12.2023	Sample status: no objections Sample received from the Client	
Start of analysis	18.12.2023		
End of analysis	30.01.2024		
Test report date	13.02.2024		

Test Method	Food simulant	Test conditions	Unit	Result	Criteria	Statement of conformity
* Sensory analysis - scoring method (6 assessors) ¹¹⁾ DIN 10955:2023-02						
Odour	almond flakes	10 d/ 23°C	-	0,0	-	-
Flavour	almond flakes	10 d/ 23°C	-	0,0	-	-
* Overall migration - food simulant A ^{2) 3) 5)} PN-EN 1186-1:2005	10% EtOH	10d/ 40°C	mg/dm ²	5,0 (5,5; 5,5; 4,5) ± 1,5	≤ 10	Pass
* Overall migration - food simulant B ^{2) 3) 5)} PN-EN 1186-1:2005	3% AA	10d/ 40°C	mg/dm ²	6,0 (6,5; 6,5; 5,0) ± 1,5	≤ 10	Pass
* Overall migration - food simulant D2 ^{2) 3) 5) 12)} PN-EN 1186-1:2005	olive oil	10d/ 40°C	mg/dm ²	< 2,0 (2,0 ± 1,0) (< 2,0; < 2,0; < 2,0)	≤ 10	Pass
* Content of elements (heavy metals according to Directive 94/62 / EC) ^{6) 12)} PB-233/ICP ed. II of 15.11.2017						
Cadmium (Cd)	-	-	mg/kg	< 0,5 (0,5 ± 0,1)	-	-
Lead (Pb)	-	-	mg/kg	< 2,0 (2,0 ± 0,4)	-	-
Mercury (Hg)	-	-	mg/kg	< 0,5 (0,5 ± 0,1)	-	-
Sum of heavy metals	-	-	mg/kg	< 100	≤ 100	Pass
* Chromium VI content (according to Directive 94/62/EC) ^{6) 12)} PN-EN 71-3:2019+A1:2021						
Chromium VI (Cr VI)	-	-	mg/kg	< 0,005 (0,005 ± 0,001)	-	-
* Specific migration - elements Of Annex II to Commission Regulation (EU) No 10/2011 ^{5) 7) 12)} PB-204 ed. 7 of 20.07.2023						
Lithium (Li)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,6	Pass
Sodium (Na)	3% AA	10 d/ 60°C	mg/kg	< 0,100 (0,100 ± 0,020)	≤ 60	Pass
Magnesium (Mg)	3% AA	10 d/ 60°C	mg/kg	< 0,050 (0,050 ± 0,010)	≤ 60	Pass
Aluminum (Al)	3% AA	10 d/ 60°C	mg/kg	< 0,050 (0,050 ± 0,010)	≤ 1	Pass
Potassium (K)	3% AA	10 d/ 60°C	mg/kg	< 0,100 (0,100 ± 0,020)	≤ 60	Pass
Calcium (Ca)	3% AA	10 d/ 60°C	mg/kg	6,32 ± 1,26	≤ 60	Pass



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Chromium (Cr)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,01	Pass
Manganese (Mn)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,6	Pass
Iron (Fe)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 48	Pass
Cobalt (Co)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,05	Pass
Nickel (Ni)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,02	Pass
Copper (Cu)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 5	Pass
Zinc (Zn)	3% AA	10 d/ 60°C	mg/kg	0,012 ± 0,002	≤ 5	Pass
Arsenic (As)	3% AA	10 d/ 60°C	mg/kg	< 0,002 (0,002 ± 0,001)	≤ 0,01	Pass
Cadmium (Cd)	3% AA	10 d/ 60°C	mg/kg	< 0,002 (0,002 ± 0,001)	≤ 0,002	Pass
Antimony (Sb)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,04	Pass
Barium (Ba)	3% AA	10 d/ 60°C	mg/kg	0,016 ± 0,003	≤ 1	Pass
Lanthanum (La)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,05	Pass
Europium (Eu)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,05	Pass
Gadolinium (Gd)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,05	Pass
Terbium (Tb)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,05	Pass
Mercury (Hg)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,01	Pass
Lead (Pb)	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,01	Pass
Sum of lanthanide - Eu, Gd, La, Tb	3% AA	10 d/ 60°C	mg/kg	< 0,005 (0,005 ± 0,001)	≤ 0,05	Pass
Specific migration - ammonium ion ^{5) 7)} PB-124 ed. I of 15.06.2011	water	10 d/ 60°C	mg/kg	0,09 ± 0,02	≤ 60	Pass

* Specific migration - primary aromatic amines ^{5) 7) 12)}
PB-413 ed. II of 22.02.2021

1,2-Phenylenediamine, [CAS 95-54-5]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
1,3-Phenylenediamine, [CAS 108-45-2]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
1,4-Phenylenediamine, [CAS 106-50-3]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
1,5-Diaminonaphthalene, [CAS 2243-62-1]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
2-Amino-4-nitrotoluene, [CAS 99-55-8]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
2-Aminobenzamide, [CAS 88-68-6]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
2-Naphthylamine, [CAS 91-59-8]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
2,4-Diaminoanisole, [CAS 615-05-4]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
2,4-Toluenediamine, [CAS 95-80-7]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
2,4-Dimethylaniline, [CAS 95-68-1]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
2,4,5-Trimethylaniline, [CAS 137-17-7]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
2,4'-Methylenedianiline, [CAS 1208-52-2]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
2,5-Dimethoxy-4-chloroaniline, [CAS 6358-64-1]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
2,6-Diaminotoluene, [CAS 823-40-5]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-



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2,6- Dimethylaniline, [CAS 87-62-7]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
3-Chloroaniline, [CAS 108-42-9]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
3,3'-Dichlorobenzidine, [CAS 91-94-1]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
3,3'-Dimethoxybenzidine, [CAS 119-90-4]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4,4'-Diamino-3,3'-dimethyldiphenylmethane, [CAS 838-88-0]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
3,3'-Dimethylbenzidine, [CAS 119-93-7]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4-Aminoazobenzene, [CAS 60-09-3]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4-Aminobenzamide, [CAS 2835-68-9]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
4-Aminodiphenyl, [CAS 92-67-1]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4-Chloro-o-toluidine, [CAS 95-69-2]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4-Methylaminosulfonyl-p-cresidine, [CAS 49564-57-0]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
4,4'-Diaminodiphenyl sulfone [CAS 80-08-0]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
4,4'-Diaminodiphenylmethane, [CAS 101-77-9]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4,4'-Methylene-bis(2-chloroaniline), [CAS 101-14-4]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4,4'-Oxydianiline, [CAS 101-80-4]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4,4'-Thiodianiline, [CAS 139-65-1]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
5-Amino-6-methyl-2-benzimidazolone, [CAS 67014-36-2]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
Anilin, [CAS 62-53-3]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
Benzidine, [CAS 92-87-5]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
4-Aminotoluene-3-sulfonic acid, [CAS 88-44-8]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
N,N-Dimethylaniline, [CAS 121-69-7]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
o-Aminoazotoluene, [CAS 97-56-3]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
o-Anisidine, [CAS 90-04-0]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
o-Toluidine, [CAS 95-53-4]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
p-Chloroaniline, [CAS 106-47-8]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
p-Cresidine, [CAS 120-71-8]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,002	Pass
p-Toluidine, [CAS 106-49-0]	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	-	-
Sum of primary aromatic amines	3% AA	10 d/ 60°C	mg/kg	< 0,0005 (0,0005 ± 0,0001)	≤ 0,01	Pass
* Specific migration - octadecyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate [CAS: 2082-79-3; Ref.: 68320] (Irganox 1076) ^{5) 7)} PB-165/HPLC ed. I of 06.08.2012	95% EtOH	10 d/ 60°C	mg/kg	1,2 ± 0,4	≤ 6	Pass



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* # Specific migration - phthalates ^{5) 7)} GC-MS						
Diisobutyl phthalate (DIBP) [CAS: 84-69-5] ⁴⁾	95% EtOH	10 d/ 60°C	mg/kg	not detected	≤ 0,01	Pass
* # Specific migration - reaction product of di-tert-butylphosphonite with biphenyl, obtained by condensation of 2,4-di-tert-butylphenol with Friedel Craft reaction product of phosphorous trichloride and biphenyl [CAS: 119345-01-6] via CAS: 38613-77-3 ^{5) 7) 10)} IZP A-96-35						
Specific migration - tetrakis(2,4-di-tert-butyl-phenyl)-4,4'-biphenylene diphosphonite [CAS: 38613-77-3; Ref.: 92560]	95% EtOH	10 d/ 60°C	mg/kg	< 2	≤ 18	Pass
* Specific migration - 1- hexene [CAS: 592-41-6; Ref.: 18820] ^{5) 7) 12)} PB-291/GC ed. II of 21.05.2018	olive oil	10 d/ 60°C	mg/kg	< 2 (2,0 ± 0,4)	≤ 3	Pass
* Specific migration - N,N-bis(2-hydroxyethyl) alkyl(C8-C18)amine [Ref.: 39090] ^{5) 8) 9) 7) 12)} PB-341/LC ed. I of 12.09.2016	95% EtOH	10 d/ 60°C	mg/kg	< 0,4 (0,4 ± 0,1)	≤ 1,2 (7)	Pass
* Specific migration - 1-octene [CAS: 111-66-0; Ref.: 22660] ^{5) 7) 12)} PB-291/GC ed. II of 21.05.2018	olive oil	10 d/ 60°C	mg/kg	< 2 (2,0 ± 0,4)	≤ 15	-
# Specific migration - vinylidene fluoride [CAS: 75-38-7; Ref.: 26140] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<5,0	≤ 5	Pass
# Specific migration - hexafluoropropylene [CAS: 116-15-4; Ref.: 18430] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<0,01	≤ 0,01	Pass
# Specific migration - N,N-bis(2-hydroksyetylo) dodecanamide [CAS: 120-40-1; Ref.: 39150] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<5,0	≤ 5	Pass
* # Specific migration - triisopropanolamine [CAS: 122-20-3; Ref.: 94560] ^{5) 7) 10)} IZP A-18-110	95% EtOH	10 d/ 60°C	mg/kg	< 0,005	≤ 5	Pass
* # Specific migration - N-octylphosphonic acid [CAS: 4724-48-5; Ref.: 68860] ^{5) 7) 10)} IZP A-12-104	95% EtOH	10 d/ 60°C	mg/kg	< 0,03	≤ 0,05	Pass
# Specific migration - triethanolamine [CAS: 102-71-6; Ref.: 94000] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<0,05	≤ 0,05	Pass
# Specific migration - 2-aminoethanol [CAS: 141-43-5; Ref.: 12763/35170] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<0,05	≤ 0,05	Pass
Specific migration - acrylic acid [CAS: 79-10-7], methacrylic acid [CAS: 79-41-4]. ^{5) 8) 7)} PB-573 ed.3 of 07.11.2023						
Specific migration - acrylic acid [CAS: 79-10-7; Ref.: 10690]	95% EtOH	10 d/ 60°C	mg/kg	< 1,0 (1,0 ± 0,4)	≤ 6 (22)	Pass
Specific migration - methacrylic acid [CAS: 79-41-4; Ref.: 20020]	95% EtOH	10 d/ 60°C	mg/kg	< 2,0 (2,0 ± 0,7)	≤ 6 (23)	Pass
# Specific migration - polyethyleneglycol (EO=1 -50) ethers of linear and branched primary (C8-C22) alcohols [Ref.: 77708] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<1,8	≤ 1,8	Pass
* Specific migration - 2,6-di-tert-butyl-p-cresol (BHT) [CAS:128-37-0; Ref.: 46640] ^{5) 7) 12)} PB-385 ed. I of 26.10.2018	olive oil	10 d/ 60°C	mg/kg	< 1 (1,0 ± 0,3)	≤ 3	Pass
* Specific migration - 1,1,1-trimethylpropane (TMP) [CAS: 77-99-6, Ref.: 13380, 25600, 94960] ^{5) 7) 12)} CEN/TS 13130-28:2005	olive oil	10 d/ 60°C	mg/kg	< 0,6 (0,6 ± 0,2)	≤ 6	Pass
* Specific migration - glycols ^{5) 8) 7) 12)} PN-EN 13130-1:2006; PN-EN 13130-7:2008						



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Specific migration - diethylene glycol [CAS: 111-46-6; Ref.: 13326, 15760, 47680]	95% EtOH	10 d/ 60°C	mg/kg	< 3 (3 ± 1)	≤ 30 (2)	Pass
Specific migration - ethylene glycol [CAS: 107-21-1; Ref.: 16990, 53650]	95% EtOH	10 d/ 60°C	mg/kg	< 3 (3 ± 1)	≤ 30 (2)	Pass
* Specific migration - formaldehyde [CAS: 50-00-0; Ref.: 17260, 54880] ^{5) 8) 12) 7)} CEN/TS 13130-23:2005	95% EtOH	10 d/ 60°C	mg/kg	< 1,5 (1,5 ± 0,3)	≤ 15 (15)	Pass
* Specific migration - acetaldehyde [CAS: 75-07-0; Ref.: 10060] ^{5) 8) 7) 12)} PB-395 ed. I of 15.05.2019	3% AA	10 d/ 60°C	mg/kg	< 0,5 (0,5 ± 0,2)	≤ 6 (1)	Pass
# Specific migration - ethylene oxide [CAS: 75-21-8; Ref.: 17020] ^{5) 7)} PB-5.6 ed. 10 of 10.06.2013	95% EtOH	10 d/ 60°C	mg/kg	<0,01	≤ 0,01	Pass
* Specific migration - mineral oils (MOSH / POSH and MOAH) ^{7) 12)} PB-396/GC wyd. II z dn. 16.11.2020						
MOSH/POSH C10-C16	95% EtOH	10 d/ 60°C	mg/kg	0,25 ± 0,13	-	-
MOSH/POSH C16-C20	95% EtOH	10 d/ 60°C	mg/kg	0,32 ± 0,16	-	-
MOSH/POSH C20-C25	95% EtOH	10 d/ 60°C	mg/kg	0,50 ± 0,25	-	-
MOSH/POSH C25-C35	95% EtOH	10 d/ 60°C	mg/kg	1,00 ± 0,50	-	-
MOSH/POSH C35-C50	95% EtOH	10 d/ 60°C	mg/kg	0,74 ± 0,37	-	-
MOSH/POSH C16-C25	95% EtOH	10 d/ 60°C	mg/kg	0,82 ± 0,41	-	-
MOSH/POSH C20-C35	95% EtOH	10 d/ 60°C	mg/kg	1,50 ± 0,75	-	-
MOSH/POSH C16-C35	95% EtOH	10 d/ 60°C	mg/kg	1,82 ± 0,91	-	-
Sum of MOSH/POSH C10-C50	95% EtOH	10 d/ 60°C	mg/kg	2,81 ± 1,41	-	-
MOAH C10-C16	95% EtOH	10 d/ 60°C	mg/kg	< 0,10 (0,10 ± 0,05)	-	-
MOAH C16-C25	95% EtOH	10 d/ 60°C	mg/kg	< 0,10 (0,10 ± 0,05)	-	-
MOAH C25-C35	95% EtOH	10 d/ 60°C	mg/kg	< 0,10 (0,10 ± 0,05)	-	-
MOAH C35-C50	95% EtOH	10 d/ 60°C	mg/kg	0,14 ± 0,07	-	-
MOAH C16-C35	95% EtOH	10 d/ 60°C	mg/kg	< 0,10 (0,10 ± 0,05)	-	-
Sum of MOAH C10-C50	95% EtOH	10 d/ 60°C	mg/kg	0,14 ± 0,07	-	-
MOH (Sum of MOSH, MOAH)	95% EtOH	10 d/ 60°C	mg/kg	2,95 ± 1,48	-	-
GC-MS/FID screening of non-intentionally added substances (NIAS), migration into food simulants PB-501 ed. I of 15.07.2022	95% EtOH	10 d/ 60°C	mg/kg	Result in Annex No. 1	-	-
Preparation of the simulant to specific migration tests - substitute food simulant D2e ¹⁾ PN-EN 13130-1:2006	95% EtOH	10 d/ 60°C	dm ² /ml	0,60/100	-	-
Preparation of the simulant to specific migration tests - food simulant D2 ¹⁾ PN-EN 13130-1:2006	olive oil	10 d/ 60°C	dm ² /ml	0,60/100	-	-
Preparation of the simulant to specific migration tests - food simulant A (water) ¹⁾ PN-EN 13130-1:2006	water	10 d/ 60°C	dm ² /ml	0,60/100	-	-
Preparation of the simulant to specific migration tests - food simulant B ¹⁾ PN-EN 13130-1:2006	3% AA	10 d/ 60°C	dm ² /ml	0,60/100	-	-

1) PN-EN 13130-1:2006 p.15

2) Migration method: total immersion.

3) Food contact surface area/food simulant volume: 1,00 dm²/100 ml.



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- 4) LOD: 0,006 mg/kg, LOQ: 0,012 mg/kg
- 5) Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food which is a specific measure within the meaning of Article 5(1) of Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing Directives 80/590/EEC and 89/109/EEC (OJ L12 of 15.1.2011, as amended).
- 6) Directive 94/62/ EC of 20 December 1994 on packaging and packaging waste, as regards the content of lead, cadmium, mercury and chromium (VI).
- 7) The result was calculated assuming the conventional surface to volume ratio of 6 dm² per 1 kg of food.
- 8) The criterion is not only related to the analysed compound(s). In brackets, next to the criterion, the restriction number for the entire group is given. The migration of the remaining compounds within the group was not included in the compliance assessment.
- 9) Together with specific migration of N,N-bis(2-hydroxyethyl)alkyl(C8-C18)amine [Ref. No. 39090] migration of N,N-bis(2-hydroxyethyl)alkyl(C8-C18)amine hydrochlorides [Ref. No. 39120] was determined.
- 10) The symbol "<" means below the limit of quantification of the analytical method.
- 11) The scale used for the odour/flavour assessment:
 - 0 - no noticeable deviation of the odour /flavour,
 - 1 - barely noticeable deviation of the odour /flavour (hard to define yet),
 - 2 - weak deviation of the odour /flavour,
 - 3 - significant deviation of the odour /flavour,
 - 4 - strong deviation of the odour /flavour (this intensity does not determine the probable maximum).
- 12) The lower limit of the measuring range of the accredited method, which is also the limit of quantification set by the Laboratory.

Test: Specific migration - 2-aminoethanol [CAS: 141-43-5; Ref.: 12763/35170] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Test: Specific migration - ethylene oxide [CAS: 75-21-8; Ref.: 17020] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Test: Specific migration - hexafluoropropylene [CAS: 116-15-4; Ref.: 18430] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Test: Specific migration - N,N-bis(2-hydroksyetylo)dodecanamide [CAS: 120-40-1; Ref.: 39150] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Test: Specific migration - N-octylphosphonic acid [CAS: 4724-48-5; Ref.: 68860] was performed in laboratory with an accreditation number L1004

Test: Specific migration - phthalates was performed in laboratory with an accreditation number STS 0038

Test: Specific migration - polyethyleneglycol (EO=1-50) ethers of linear and branched primary (C8-C22) alcohols [Ref.: 77708] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Test: Specific migration - reaction product of di-tert-butylphosphonite with biphenyl, obtained by condensation of 2,4-di-tert-butylphenol with Friedel Craft reaction product of phosphorous trichloride and biphenyl [CAS: 119345-01-6] via CAS: 38613-77-3 was performed in laboratory with an accreditation number L1004

Test: Specific migration - triethanolamine [CAS: 102-71-6; Ref.: 94000] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Test: Specific migration - triisopropanolamine [CAS: 122-20-3; Ref.: 94560] was performed in laboratory with an accreditation number L1004

Test: Specific migration - vinylidene fluoride [CAS: 75-38-7; Ref.: 26140] was performed in laboratory Laboratorium Badań Produktów Spożywczych, Produktów Barwionych i Środowiska Łódź Poland

Authorized by:

ID: 64, Analysis Expert, Non-Food and Packaging Laboratory

ID: 186, Analysis Expert, Environmental Analysis Laboratory

ID: 416, Analysis Expert, Non-Food and Packaging Laboratory

ID: 492, Analysis Expert, Sensory Analysis Laboratory

ID: 632, Senior Analysis Specialist, Non-Food and Packaging Laboratory

ID: 664, Analysis Specialist, Non-Food and Packaging Laboratory

ID: 1107, Analysis Expert, Non-Food and Packaging Laboratory

Subcontracted test results are authorised by persons authorised by the external provider.

The test report bears the certified electronic seal of J.S. Hamilton Poland Sp. z o.o.

Laboratory address:

Chwaszczyńska 180, 81-571 Gdynia

The results refer only to the samples received. When a measurement uncertainty is given, it is an expanded uncertainty estimated for a coverage factor k=2 at 95% confidence level and is not including sampling uncertainty, unless otherwise stated. When the conformity is stated J.S. Hamilton Poland Sp. z o.o. applies the simple acceptance decision rule in accordance with ILAC-G8:09/2019, unless otherwise reported. If the "result" column of the accredited method contains a record: "<" or ">", it means, that it is the test outcome directly related to the lower or upper limit of the measuring range of the accredited method, whereas the given expanded measurement uncertainty relates only to the lower or upper limit of the measuring range of the accredited method respectively. In such a case, the Laboratory presents the opinion and interpretation in the "statement of conformity" column, which is based on the obtained test outcome. This test report may not be copied in part without the prior written permission of J.S. Hamilton Poland Sp. z o.o. The responsibility of J.S. Hamilton Poland Sp. z o.o. is limited solely to the data issued in its original. J.S. Hamilton Poland Sp. z o.o. does not permit the use of the PCA accreditation symbol AB 079 by customers, subcontractors, external service providers and other third parties. For further information please refer to the PCA document - DA-02. The service confirmed by this report is subject to the General Terms and Conditions of Services of J.S. Hamilton Poland Sp. z o.o. published on www.hamilton.com.pl.

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