FOOD CONTACT CENTER

LAB N° 1786 L

TEST REPORT N° FC200144.02 **Date: 09/06/2020**

Customer	HALOPOLYMER KIROVO-CHEPETSK, LLC 2 POZHARNY PER. RUSSIA 613040 KIROVO-CHEPETSK KIROV REGION
Sample ID	Fluoroplast-4 modified
Sampling	by Customer
Arrival Date	18/05/2020
Start test date	19/05/2020
End test date	04/06/2020
PASS/FAIL	PASS
According to:	GB standards 4806 .1,6 and 7:2016 and GB 9685:2016 and according to technical GB standards series 31604:2015

Food Contact Center s.r.l.
Sede operativa e laboratorio
Via E. Pestalozzi n.63 51100 Pistoia
Sede legale e Amministrativa:
Via Vecchia Provinciale Lucchese 19/E 51034
Serravalle Pistoiese (PT) Italy

FOOD CONTACT CENTER

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 1786 L

TEST REPORT N° FC200144.02 **Date: 09/06/2020**

Time: 10 days
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Overall migration in acetic acid 4% w/V by total immersion - first attack	ND		mg/dm²	1	10	GB31604.1:2016 + GB31604.8:2016	L75	19/05/2020	04/06/2020
Overall migration in ethanol 10% by total immersion - first attack	ND		mg/dm²	1	10	GB31604.1:2016 + GB31604.8:2016	L75	19/05/2020	04/06/2020
Overall migration in olive oil by total immersion - first attack	ND		mg/dm²	1	10	GB31604.1:2016 + GB31604.8:2016 (*)	L75	19/05/2020	04/06/2020

Time: 10 days
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Specific migration of primary aromatic amines in acetic acid 4% w/V	ND		mg/kg	0,01	0,01	UNI EN 13130-1:2005 + BVL LFGB §64 L 00.00-6:1995/Cor:2002	L29	19/05/2020	03/06/2020

Time: 10 days
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Specific Migration of metals in Acetic Acid 4%									
Specific migration of aluminium in acetic acid 4%	ND		mg/kg	0,01	1	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of barium in acetic acid 4%	ND		mg/kg	0,01	1	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of cobalt in acetic acid 4%	ND		mg/kg	0,01	0,05	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of Copper in acetic acid 4%	ND		mg/kg		5	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of Iron in acetic acid 4%	ND		mg/kg		48	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of manganese in acetic acid 4%	ND		mg/kg	0,01	0,6	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of nickel in acetic acid 4%	ND		mg/kg	0,01	1	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of Zinc in acetic acid 4%	ND		mg/kg		25	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020
Specific migration of lithium in acetic acid 4%	ND		mg/kg	0,01	0,6	Reg UE 10/2011 14/01/2011 GU UE L12 15/01/2011+ UNI EN 13130-1:2005+UNI EN ISO 11885:2009 (*)	L29	19/05/2020	29/05/2020

Food Contact Center s.r.l.
Sede operativa e laboratorio
Via E. Pestalozzi n.63 51100 Pistoia
Sede legale e Amministrativa:
Via Vecchia Provinciale Lucchese 19/E 51034
Serravalle Pistoiese (PT) Italy

FOOD CONTACT CENTER

ACCREDIA L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 1786 L

TEST REPORT N° FC200144.02 **Date: 09/06/2020**

Time: 2 h
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Specific Migration of metals in Acetic Acid 4%									
Specific migration of lead in acetic acid 4%	ND		mg/kg	0,1	1	GB 31604.9 (*)	L29	19/05/2020	29/05/2020

Time: 3 days
Temperature: 20°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Specific migration of tetrafluoroethylene _CAS 116-14-3 in isoctane	ND		mg/kg	0,02	0,05	UNI EN 13130-1:2005 + MHTH026 rev.0 2017 (*)	L30	19/05/2020	25/05/2020

Time: 10 days
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Sensory ispection									
Colour and Luster	Note 3					GB 4806.7-2016 (*)	L75	19/05/2020	03/06/2020
Abnormal odour and dirt	Note 3					GB 4806.7-2016 (*)	L75	19/05/2020	03/06/2020
Soak Solution condition									
Coloration	Note 3					GB 4806.7-2016 (*)	L75	19/05/2020	03/06/2020
Abnormal Odour	Note 3					GB 4806.7-2016 (*)	L75	19/05/2020	03/06/2020
Precipitation	Note 3					GB 4806.7-2016 (*)	L75	19/05/2020	03/06/2020
Turbidity	Note 3					GB 4806.7-2016 (*)	L75	19/05/2020	03/06/2020

Time: 10 days
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Decolorization test	A		P/A			GB31604.7 (*)	L75	19/05/2020	03/06/2020

Time: 2 h
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Potassium Permaganate Consumption	ND		mg/L	1	10	GB31604.2 (*)	L75	26/05/2020	26/05/2020

Time: 10 days
Temperature: 60°C

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Screening GC/MS of non-volatile substances on ethanol 95%	Note1		mg/kg			MHTH004 rev. 0 2016 (*)	L30	22/05/2020	04/06/2020

Food Contact Center s.r.l.
Sede operativa e laboratorio
Via E. Pestalozzi n.63 51100 Pistoia
Sede legale e Amministrativa:
Via Vecchia Provinciale Lucchese 19/E 51034
Serravalle Pistoiese (PT) Italy

FOOD CONTACT CENTER

LAB N° 1786 L

TEST REPORT N° FC200144.02 **Date: 09/06/2020**

PARAMETER	RESULT	UNCERTAINTY	U.M.	LOQ	LIM	METHOD	LAW REFERENCE	START DATE TEST	END DATE TEST
Evaluation of organoleptic inertia (odour) - No packaging	Note 2					MHTH010 rev.0 2016 deriv UNI 10192:2000 (*)	L76	02/06/2020	03/06/2020
Evaluation of organoleptic inertia (flavour) - No packaging	Note 2					MHTH010 rev.0 2016 deriv UNI 10192:2000 (*)	L30	02/06/2020	03/06/2020

LAW REFERENCE:

L29	GB 9685 - Appendix C	L76	GB 4806.1-2016
L30	GB 4806.6-2016		
L75	GB 4806.7-2016		

NOTE:

(*) Those test are not under the Accreditation scope of our Laboratory.

P/A: present/absent. Expression of the result for decolorization test

S/V=0,6

Note1:The GC/MS screening did not show occurrance of harmful substances for human health.

Note 2: Performed Condition: 24h, 40°C simulants used: biscuits, white chocolate and butter; all scores equal to 0; there are no alterations and differences in smell and taste.

Note 3: At the end of the contact period with the speciements, each simulant:

1. did not show any variation of the colour and the luster;
2. did not show any coloration, precipitation or turbidity
3. did not have any strange odour or dirt.

Food Contact Center s.r.l.
Sede operativa e laboratorio
Via E. Pestalozzi n.63 51100 Pistoia
Sede legale e Amministrativa:
Via Vecchia Provinciale Lucchese 19/E 51034
Serravalle Pistoiese (PT) Italy

FOOD CONTACT CENTER

LAB N° 1786 L

TEST REPORT N° FC200144.02 **Date: 09/06/2020**

The original test report is supplied in digital form, and digitally signed by the authorised responsible. This test report shall not be reproduced except in full, without written approval of the laboratory. Printed copy of the mentioned original digital test report has no legal value.

Chemical determinations: expanded uncertainty is referred to 95% confidence level. Coverage factor k=2.

The limit of determination (LOD) results as 1/10LOQ*3

N.D= less than LOQ (limit of quantification)

The reported results only refer to the tested sample.

u.m. = unit of measurement; unc = uncertainty;

RIS=Result; Lim=limit

S/V = surface/volume

Authorized by

Technical Manager

END OF THE REPORT

Food Contact Center s.r.l.
Sede operativa e laboratorio
Via E. Pestalozzi n.63 51100 Pistoia
Sede legale e Amministrativa:
Via Vecchia Provinciale Lucchese 19/E 51034
Serravalle Pistoiese (PT) Italy