CERTIFICATE OF ANALYSIS



Issued from: Choksi Laboratories Limited Survey No. 9/1, Balaji Tulsiyana Industrial Estate, Kumedi, Off. M.R. 10 Toll Naka, Indore –452010 (M.P.), INDIA

Issued to:	BULKPACK EXPORTS LIMITED, INDORE	CoA ID:	03400003/22-23
	507, "B" BLOCK,5TH FLOOR,CORPORATE HOUSE,	Issue Date:	16/05/2022 (dd/mm/yyyy)
	RNT MARG ,INDORE,	Customer Ref. No. 1:	NM
	INDIA - 452001	Customer Ref. No. 2:	NM

Sample Particulars: FABRIC (50x500 cm Flat)				Page 1 of 3	
Sample Receive	d Nato: 21/04/2022	Start date of Analysis:	21/04/2022	Date of Completion of Analysis:	12/05/2022
Quantity:	1 No.	Packing:	PLASTIC BAG	Sealed/Unsealed:	Unsealed
Batch No.:	Fabric GSM-48	Date of Mfg.:	NM	Date of Exp.:	NM
Other Details:	As mentioned below				
Ref.1:	Length – 5 meter				
Description	White Polypropylene plastic Fabric				

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TEST SPECIFICATION AS PER EU-10/2011

(A)	Table – 1 [Overall Migration Test]					
Sr. No.	Characteristic	Unit	Result	Specification	Method Detection Limit	Method of Test
i	3% Acetic acid	mg/dm²	3.2	Max. 10	-	EU-10/2011
ii	10% Ethanol	mg/dm²	2.4	Max. 10	-	EU-10/2011
iii	20% Ethanol	mg/dm²	2.6	Max. 10	-	EU-10/2011
iv	50% Ethanol	mg/dm²	2.8	Max. 10	-	EU-10/2011
v	Vegetable Oil	mg/dm²	2.5	Max. 10	-	EN-1186-2
vi	Tenax (Poly 2, 6- diphenyl p- phenylene Oxide)	mg/dm²	3.2	Max. 10		EU-10/2011
2	HEAVY METAL					
а	Barium as Ba	ppm	Below detection limit	Max 1.0	0.0025	EU-10/2011
b	Cobalt as Co	ppm	Not detected	Max 0.05	0.005	EU-10/2011
С	Copper as Cu	ppm	Below detection limit	Max 5.0	0.005	EU-10/2011
d	Iron as Fe	ppm	0.52	Max 48	0.005	EU-10/2011
е	Lithium as Li	ppm	Below detection limit	Max 0.6	0.005	EU-10/2011
f	Zinc as Zn	ppm	Not detected	Max 5.0	0.005	EU-10/2011
g	Nickel as Ni	ppm	Below detection limit	Max 0.02	0.005	EU-10/2011
h	Aluminum as Al	ppm	Not detected	Max 1.0	0.005	EU-10/2011

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Note:

1.

<u>Specification Reference in Directive</u>
COMMISSION DIRECTIVE (EU) 2017-752 of 28 APRIL 2017

Amending and correcting regulation (EU) No. 10/2011 on plastic material and article intended to come into contact with food.

Plastic materials and articles shall not transfer their constituents to foodstuffs in quantities exceeding 10 milligrams per square decimeter of surface area of material or article (mg/dm²) (overall migration limit).

- 2. The Customer has not provided information on quantity of material (in grams) in real conditions of use as well
 - as surface area of the material (FABRIC) in real conditions of use.
- The overall migration limit of 10 mg per 1 dm² results for a cubic packaging containing 1 kg of food to a migration of 60 mg per kg food. For small packaging where the surface to volume ratio is higher the resulting migration into food is higher. For infants and small children which have a higher consumption of food per kilogram body weight than adults and do not yet have a diversified nutrition. These limits does not apply to plastic materials and articles intended to be brought into contact 3. with or already in contact with food for infants and young children.
- The setting of migration limits takes into account a conventional assumption that 1 kg of food is consumed daily by a person of 60 kg body weight and that the food is packaged in a cubic container of 6 dm² surface area releasing the substance. For very small and very large containers the real surface area to volume of packaged food is varying a lot from the conventional assumption. Therefore, their surface area should be normalised before comparing testing results with migration limits. These rules should be reviewed when new data on food packaging uses become available. 4.

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CERTIFICATE OF ANALYSIS



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Commission Regulation (EU) No. (EU) 2017-752 of 28 APRIL 2017
On plastic material and article intended to come into contact with foodstuffs

Table - 2 Food type and food simulants

Food Type	Food Simulant	Abbreviation
Alcoholic foods	10% Ethanol (v/v)	Simulant A#
Aqueous foods (i.e. aqueous foods having a pH>4.5)	3% Acetic acid (W/V)	Simulant B##
Alcoholic foods	, ,	Simulant C###
Alcoholic foods	Ethanol 50% (v/v) This concentration shall be adjusted to the actual alcoholic strength of the food if it exceeds 50% (v/v)	Simulant D1 ^{####}
Fatty foods	Vegetable Oil	Simulant D2#####
Tenax	Poly 2,6-diphenyle-p-phenylene	Simulant E#####

^{*}Simulant A refers to 10% Ethanol

Migration test conditions (times and temperatures)

The time & temperature of the test was selected Table 2 of Annexure 5 in Directive (EU10/2011) based on the criteria that the product was to be used for Food item, stored at ambient conditions.

Table –3 [Standardised testing conditions]######

Test Condition	Contact time in days or and contact temperature Intended food contact condition	
C1	10 days at 40°C	Testing for 10 days at 40°C shall cover all storage times of up to 6 months at room temerature, including hot fil conditioon and/or heating upto 70°C ≤ T ≤100°C for maximum t =120/2 (T-70/10) minutes.
C2	Single time use.	-
C3		For simulant E testing at 2 hours and temperature 175°C

#######The above simulant, time & temperature conditions were prescribed by the Customer.

Note: 1. Sample not drawn by CLL representative, and sample information as furnished by client.

- 2. Test report shall not be reproduced either in part or in full, without written approval of CLL Management.
- 3. CLL does not give any opinion or interpretation of the same.

^{##}Simulant B refers to 3% Acetic acid

^{###}Simulant C refers to 20% Ethanol

^{####}Simulant D1 refers to 50% Ethanol

^{#####}Simulant D2 refers to Vegetable Oil

 $^{^{\#\#\#\#\#}}$ Simulant E refers to Poly 2,6-diphenyle-p-phenylene oxide (Tenax)