



## PRODUCT SPECIFICATION - PAPER STRAW

Doc. No: SP-11-03 / Published Date: 21.12.2017 / Rev. No: 03 / Rev. Date: 23.03.2021

|                     |   |
|---------------------|---|
| Product Code        | TM.TIW08195RMK  |
| Product Description | PAPER STRAW, Ø8mm.,195mm, STRAIGHT, WRAPPED                                   |
| Origin              | Turkey  |
| Ingredients         | Products are made of paperboard with PE coated lamination. Food contact glue. |

### Physical Properties

| Parameters     | Unit   | Value | Tolerance |
|----------------|--------|-------|-----------|
| Unit Weight    | g      | 1.8   | +/- 5%    |
| Width          | mm     | 8     | -         |
| Height         | mm     | 0     | -         |
| Wall Thickness | micron |       | +/- 5%    |

### Chemical Properties

#### DETERMINATION of OVERALL MIGRATION

| FOOD TYPE                                    | SIMULANT                          | TIME (h) | TEMP. (C <sup>0</sup> ) | METHOD     | LOQ* (mg/kg) | REQUIREMENT              |
|--|-----------------------------------|----------|-------------------------|------------|--------------|--------------------------|
| Acidic Food                                  | Food Simulant B, Acetic Acid 3%   | 2        | 70                      | EN 1186-5  | 2            | <=10 mg/ dm <sup>2</sup> |
| Aqueous Food                                 | Food Simulant A, Ethanol 10%      | 2        | 70                      | EN 1186-5  | 2            | <=10 mg/ dm <sup>2</sup> |
| Alternative Simulant for fatty Food Simulant | Fatty Food Simulant , Ethanol 95% | 2        | 60                      | EN 1186-14 | 2            | <=10 mg/dm <sup>2</sup>  |
| Fatty Food Substituted Simulation            | Isooctane                         | 30 min.  | 40                      | EN 1186-14 | 2            | <=10 mg/ dm <sup>2</sup> |

#### DETERMINATION of SPECIFIC MIGRATION

| SUBSTANCE      | CAS Number | SIMULANT       | TIME (h) | TEMP. (C <sup>0</sup> ) | SML REQUIREMENT (mg/kg) | METHOD                   | DETECTION LIMIT (mg/kg) |
|----------------|------------|----------------|----------|-------------------------|-------------------------|--------------------------|-------------------------|
| Manganese (Mn) | 7439-96-5  | Acetic acid 3% | 2h       | 70                      | 0.6 (max.)              | EN 13130-1 ISO 17294-1&2 | 0.007                   |
| Copper (Cu)    | 7440-50-8  | Acetic acid 3% | 2h       | 70                      | 5 (max.)                | EN 13130-1 ISO 17294-1&2 | 0.007                   |
| Cobalt (Co)    | 7440-48-4  | Acetic acid 3% | 2h       | 70                      | 0.05 (max.)             | EN 13130-1 ISO 17294-1&2 | 0.007                   |
| Lithium (Li)   | 7439-93-2  | Acetic acid 3% | 2h       | 70                      | 0.6 (max.)              | EN 13130-1 ISO 17294-1&2 | 0.008                   |
| Zinc (Zn)      | 7440-66-6  | Acetic acid 3% | 2h       | 70                      | 5 (max.)                | EN 13130-1 ISO 17294-1&2 | 0.010                   |
| Barium (Ba)    | 7440-39-3  | Acetic acid 3% | 2h       | 70                      | 1 (max.)                | EN 13130-1 ISO 17294-1&2 | 0.007                   |
| Iron (Fe)      | 7439-89-6  | Acetic acid 3% | 2h       | 70                      | 48 (max.)               | EN 13130-1 ISO 17294-1&2 | 0.008                   |
| Aluminum (Al)  | 7429-90-5  | Acetic acid 3% | 2h       | 70                      | 1 (max.)                | EN 13130-1 ISO 17294-1&2 | 0.008                   |
| Nickel (Ni)    | 7440-02-0  | Acetic acid 3% | 2h       | 70                      | 0.02 (max.)             | EN 13130-1 ISO 17294-1&2 | 0.007                   |
| Antimony (Sb)  | 7440-36-0  | Acetic acid 3% | 2h       | 70                      | 0.04 (max.)             | EN 13130-1 ISO 17294-1&2 | 0.003                   |
| Arsenic (As)   | 7440-38-2  | Acetic acid 3% | 2h       | 70                      | 0.002 (ND)              | EN 13130-1 ISO 17294-1&2 | 0.0002                  |

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| <b>DETERMINATION of SPECIFIC MIGRATION</b> |                   |                 |                 |                              |                                |                          |                                |
|--|-------------------|-----------------|-----------------|------------------------------|--------------------------------|--------------------------|--------------------------------|
| <b>SUBSTANCE</b>                           | <b>CAS Number</b> | <b>SIMULANT</b> | <b>TIME (h)</b> | <b>TEMP. (C<sup>0</sup>)</b> | <b>SML REQUIREMENT (mg/kg)</b> | <b>METHOD</b>            | <b>DETECTION LIMIT (mg/kg)</b> |
| Cadmium (Cd)                               | 7440-43-9         | Acetic acid 3%  | 2h              | 70                           | 0.002 (ND)                     | EN 13130-1 ISO 17294-1&2 | 0.0009                         |
| Lead (Pb)                                  | 7439-92-1         | Acetic acid 3%  | 2h              | 70                           | 0.003 (ND)                     | EN 13130-1 ISO 17294-1&2 | 0.002                          |
| Mercury (Hg)                               | 7439-97-6         | Acetic acid 3%  | 2h              | 70                           | 0.007 (ND)                     | EN 13130-1 ISO 17294-1&2 | 0.0001                         |
| Europium (Eu)                              | 7440-53-1         | Acetic acid 3%  | 2h              | 70                           | 0.05 sum (max.)                | EN 13130-1 ISO 17294-1&2 | 0.005                          |
| Gadolinium (Gd)                            | 7440-54-2         | Acetic acid 3%  | 2h              | 70                           |                                | EN 13130-1 ISO 17294-1&2 | 0.005                          |
| Lanthanum (La)                             | 7439-91-0         | Acetic acid 3%  | 2h              | 70                           |                                | EN 13130-1 ISO 17294-1&2 | 0.005                          |
| Terbium (Tb)                               | 7440-27-9         | Acetic acid 3%  | 2h              | 70                           |                                | EN 13130-1 ISO 17294-1&2 | 0.005                          |
| Chromium (Cr)#                             | 7440-47-3         | Acetic acid 3%  | 2h              | 70                           | 0.01 (ND)                      | EN 13130-1 ISO 17294-1&2 | 0.001                          |

- N.D. : Not Detected
- # = When migration of total chromium is between 0.01 mg/kg and 3.6 mg/kg, chromium (VI) content in plastic shall be not dete

| <b>ANALYSIS NAME</b>  | <b>CAS Number</b>      | <b>TIME (h)</b> | <b>TEMP. (°C)</b> | <b>METHOD</b>                             | <b>LOQ*</b> | <b>REQUIREMENT</b> |
|---|------------------------|-----------------|-------------------|---|-------------|--------------------|
| Determination of Bisphenol A Migration, Aqueous Food Simulant               | 80-05-7 FCM No: 151    | 2h              | 70                | CEN/TS 13130-13<br>BS EN 14372 EN 14350-2 | 0.01 mg/kg  | <=0,05 mg/kg       |
| Butyl Benzyl Phthalate ( <b>BBP</b> )<br>Phthalatec Acid Benzyl butyl ester | 85-68-7 FCM No: 159    | -               | -                 | BS EN 14372                               | 0.002 %     | <=0,1 %            |
| Di-n-Butyl Phthalate ( <b>DBP</b> )   | 84-74-2 FCM No: 157    | -               | -                 | BS EN 14372                               | 0.002 %     | <=0,05 %           |
| Di(Ethylhexyl) Phthalate ( <b>DEHP</b> )                                    | 117-81-7 FCM No: 283   | -               | -                 | BS EN 14372                               | 0.001 %     | <=0,1 %            |
| Di-Iso-Nonyl Phthalate( <b>DINP</b> )                                       | 28553-12-0 FCM No: 728 | -               | -                 | BS EN 14372                               | 0.022 %     | <=0,1 %            |
| Di-Isodecyl Phthalate ( <b>DIDP</b> )                                       | 26761-40-0 FCM No: 729 | -               | -                 | BS EN 14372                               | 0.015 %     | <=0,1 %            |

\* LOQ: Limit of Quantification

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| <b>SPECIFIC MIGRATION of PRIMARY AROMATIC AMINES (PAA)</b> |                   |                   |                 |                   |                   |                               |                    |
|--|-------------------|-------------------|-----------------|-------------------|-------------------|-------------------------------|--------------------|
| <b>COMPOUND</b>  | <b>CAS Number</b> | <b>SIMULANT</b>   | <b>TIME (h)</b> | <b>TEMP. (°C)</b> | <b>METHOD</b>     | <b>DETECTION LIMIT(mg/kg)</b> | <b>REQUIREMENT</b> |
| 4-Aminodiphenyl  | 92-67-1           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| Benzidine  | 92-87-5           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 4-Chloro-o-toluidine                                       | 95-69-2           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 2-Naphthylamine  | 91-59-8           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| o-Aminoazotoluene  | 97-56-3           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 2-Amino-4-nitrotoluene                                     | 99-55-8           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| p-Chloroaniline  | 106-47-8          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 2,4-Diaminoanisole   | 615-05-4          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 4,4'-Diaminodiphenylmethane                                | 101-77-9          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 3,3'-Dichlorobenzidine                                     | 91-94-1           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 3,3'-Dimethoxybenzidine                                    | 119-90-4          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 3,3'-Dimethylbenzidine                                     | 119-93-7          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 3,3'-Dimethyl-4,4'-diamino diphenylmethane                 | 838-88-0          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| p-Cresidine  | 120-71-8          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 4,4'-Methylene-bis (2-chloroaniline)                       | 101-14-4          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 4,4'-Oxydianiline  | 101-80-4          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 4,4'-Thiodianiline   | 139-65-1          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| o-Toluidine  | 95-53-4           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 2,4-Toluylenediamine                                       | 95-80-7           | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |
| 2,4,5-Trimethylaniline                                     | 137-17-7          | Acetic acid<br>3% | 2h              | 70                | EN24815<br>EN2011 | 0.002                         | ND                 |

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| COMPOUND                                       | CAS Number  | SIMULANT       | TIME (h) | TEMP. (°C) | METHOD            | DETECTION LIMIT(mg/kg) | REQUIREMENT |
|--|-------------|----------------|----------|------------|-------------------|------------------------|-------------|
| o-Anisidine                                    | 90-04-0     | Acetic acid 3% | 2h       | 70         | EN24815<br>EN2011 | 0.002                  | ND          |
| 4-Aminoazobenzene                              | 60-09-3     | Acetic acid 3% | 2h       | 70         | EN24815<br>EN2011 | 0.002                  | ND          |
| m-Phenylendiamine                              | 108-45-2    | Acetic acid 3% | 2h       | 70         | EN24815<br>EN2011 | 0.002                  | ND          |
| Benzoguanamin                                  | 91-76-9     | Acetic acid 3% | 2h       | 70         | EN24815<br>EN2011 | 0.05                   | 5           |
| 4,4'-Methylenebis(3-chloro- 2,6-diethylaniline | 106246-33-7 | Acetic acid 3% | 2h       | 70         | EN24815<br>EN2011 | 0.05                   | 0.05        |
| Total of other primary aromatic amines         | -           | Acetic acid 3% | 2h       | 70         | EN24815<br>EN2011 | 0.010                  | 0.010       |

Analysis Name: Specific migration of Primary Aromatic Amines (**PAA**)

Requirement: European Commission Regulation No. 10/2011 Annex II, Regulation No. 2016/1416, Regulation No. 2020/1245 and Regulation No. 1935/2004 –Specific Migration of Primary Aromatic Amines

Remark: **ND** = Not detected

### Packaging Properties

| Parameters             | Unit | Value |
|------------------------|------|-------|
| Pcs/sleeve             |      | 100   |
| pcs/box                |      | 2300  |
| Sleeve width           | mm   | 0     |
| Sleeve lenght          | mm   | 0     |
| Sleeve Unit Weight     | g    | 0     |
| Box width              | mm   | 300   |
| Box lenght             | mm   | 400   |
| Box height             | mm   | 430   |
| Box unit weight        | g    | 500   |
| Net Weight             | g    | 4140  |
| Gross Weight           | g    | 4640  |
| Cases Per Layer        |      |       |
| Number of Layers       |      |       |
| Total Cases Per Pallet |      | 40    |
| Pallet Height          | mm   | 2300  |

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### General Information

|                       |   |
|-----------------------|---|
| Transport             | <ul style="list-style-type: none"><li>* Products must be referred without any pest, pest remains, glass, wood, wire etc. contamination.</li><li>* Vehicles must be cleaned before installation</li><li>* During transport, over the vehicle must be closed by polyethylene and sealed canvas, rain water infiltration must be avoided and must not be opened before</li></ul> |
| Storage               | <ul style="list-style-type: none"><li>* It should be stored in original packaging in dry conditions away from sunlight. Temperature 10 - 30 °C Relative Humidity Max 60%.</li><li>* Expiraiton Date: 2 years from the date of production.</li></ul>   |
| Labelling Information | Product code and description, parcel number, order number, date, shift, barcode number<br>☞   |
| Traceability          | Date and Shift  |

### Legal Requirements

#### EUROPEAN UNION

1. Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food and its amendments up to date of this document
2. Regulation (EC) No 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food and its amendments up to date of this statement
3. Regulation (EC) No 10/2011 on plastic materials and articles intended to come into contact with food and its amendments up to date of this document
4. Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with Food
5. Regulation (EU) 2020/1245 of 2 September 2020 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food
6. Commission Regulation (EU) 2017/752 of 28 April 2017 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with Food
7. Directive 94/62/EC on packaging and packaging waste and its amendsmnts up to date regarding the threshold limit of 100 ppm by weight of heavy metals

#### TURKISH FOOD CODEX

8. Veterinary Services, Plant Health, Food and Feed Law (O.N. 27610/13.06.2010)- (O.N : 30616/5.12.2018)
9. Regulation on Food Hygiene (O.N. 28145/17.12.2011)
10. Turkish Food Codex Food Labeling and Consumer Information Regulation (O.N. 29960/26.01.2017)
11. Property of Materials and Food Contact Regulation on Good Manufacturing Practice and Registration Procedures (O.N. 28373/03.08.2012)- (O.N : 28547/02.02.2013)
12. Regulation on plastic materials and articles intended to come into contact with food (2019/44) (O.N. 30989/25.12.2019)
13. Regulation on the list of simulants used in migration test of plastic materials and articles intended to come into contact with food (2019/43) (O.N. 30989/25.12.2019)
14. Turkish Food Codex Regulation on Substances and Materials in contact with food (R.G. 30680 / 8.2.2019)
15. Regulation on Registration and Approval Procedures of Food Businesses (R.G. 30825 / 08.07.2019)
16. The Regulation of Waste Control of Food Contact Materials

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