

**CERTIFICATE OF ANALYSIS No. 20-0000/16**

In pursuance of an order received from JV «Uz-Kor Gas Chemical» LLC, with address: 230100, 121 Turtkul Guzari str., Nukus Republic of Karakalpakstan, requesting us to carry out the instructions summarized as under:

**SCOPE OF INSPECTION :**

- Dispatch of provided samples to the chemical laboratory in SGS Korea for testing of following parameters as per standard EU No.10/2011 :
  - Sensory test (Water);
  - Overall migration (3% HOACs, 95% EtOH, Isooctane);
  - S.M.1 (3% HOACs); 7 metals;
- Remark: EU regulation 1935/2004/EC 10/2011 EC, Four PE, Two Homo-PP, Two Random PP 400 C\*10 days (OM, SM);

of a consignment designated as:

PRODUCT NAME : PP  
ITEM No. : B-320  
CLIENT REFERENCE DATA : JV «Uz-Kor Gas Chemical» LLC Manufacturer.

**WE REPORT AS FOLLOWS:**

On the 05-14th of February 2016, FE “SGS Tashkent Ltd.” has been provided with the samples of polyethylene & polypropylene ex representative of JV «Uz-Kor Gas Chemical» LLC.  
On the 16th of February 2016 the samples were sent to the laboratory to SGS Korea Co. for the testing and the findings reported in Test Report No. F690101/LF-CTSAYAA16-12795 dd.16.03.2016 are as follows.

**Test Period** : 25.02-16.03.2016.  
**Test Result(s)** : For further details, please refer to following page (s)  
**Result Summary:**

| Test Requested  | Commission  |
|---|-------------|
| <b>1. Commission Regulation (EU) No 10/2011 and hence Article 3 of European Regulation No. 1935/2004.</b> | -           |
| a) Plastic – Overall Migration  | <b>PASS</b> |
| b) Plastic – Specific Migration of Heavy Metals   | <b>PASS</b> |
| <b>2. German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section 31</b>         | -           |
| a) Sensorial examination odour and taste test   | <b>PASS</b> |

Sample No. : **AYAA16-12795.001**  
 Sample Description : PP  
 Item / Part No. : B-320  
 Material : N/A

**Test result(s) :**

**1. European Commission Regulation (EU) No 10/2011**

**a) Plastic – Overall migration**

Method: With reference to EN 1186-1:2002 for selection of conditions and test methods;  
 EN 1186-3:2002 aqueous food simulants by total immersion method;  
 EN 1186-14:2002 Substitute test

| Simulant Used                        | Test Condition    | Result (mg/dm <sup>2</sup> ) | Detection Limit (mg/dm <sup>2</sup> ) | Permissible (mg/dm <sup>2</sup> ) |
|--------------------------------------|-------------------|------------------------------|---------------------------------------|-----------------------------------|
| 3% Acetic Acid(W/V) Aqueous Solution | 40 °C for 10 days | N.D                          | 3.0                                   | 10                                |
| 95% Ethanol(V/V) Aqueous Solution    | 40 °C for 10 days | N.D                          | 3.0                                   | 10                                |
| Isooctane                            | 20 °C for 2 days  | N.D                          | 3.0                                   | 10                                |
| <b>Comment</b>                       | --                | <b>PASS</b>                  | --                                    | --                                |

Note : 1. mg/dm<sup>2</sup> = milligram per square decimeter

2. °C = degree Celsius

3. N.D = Not Detected

4. Permissible Limit is according to Commission Regulation (EU) No 10/2011 of January 2011 with amendments.

**Remark:**

1. Analytical tolerance of aqueous simulants is 1mg/dm<sup>2</sup> or 6mg/kg
2. Analytical tolerance of fatty food simulants is 3mg/dm<sup>2</sup> or 20mg/kg
3. Test condition & simulant were specified by client.

Sample No. : **AYAA16-12795.001**  
 Sample Description : PP  
 Item / Part No. : B-320  
 Material : N/A

**b) Plastic – Specific migration of Heavy metals**

Method: With reference to EN 13130-1:2004. Analysis was performed by ICP-MS / ICP-OES.  
 Simulant Used: 3 % acetic acid (w/v) in aqueous solution  
 Test Condition: 40 °C for 10 days

| Test Item                       | Result (mg/kg) | Reporting Limit (mg/kg) | Permissible (mg/kg) |
|---------------------------------|----------------|-------------------------|---------------------|
| Specific Migration of Barium    | N.D            | 0.3                     | 1                   |
| Specific Migration of Cobalt    | N.D            | 0.01                    | 0.05                |
| Specific Migration of Copper    | N.D            | 0.3                     | 5                   |
| Specific Migration of Iron      | N.D            | 0.3                     | 48                  |
| Specific Migration of Lithium   | N.D            | 0.5                     | 0.6                 |
| Specific Migration of Manganese | N.D            | 0.3                     | 0.6                 |
| Specific Migration of Zinc      | N.D            | 0.5                     | 25                  |
| <b>Comment</b>                  | <b>PASS</b>    | --                      | --                  |

Note : 1. mg/kg = milligram per kilogram of foodstuff in contact with  
 2. °C = degree Celsius  
 3.N.D -= Not Detected.  
 4.Permissible Limit is according to Commission Regulation (EU) No 10/2011 of January 2011 with amendments.

Remark : 1. Test condition & simulant were specified by client

Sample No. : **AYAA16-12795.001**  
 Sample Description : PP  
 Item / Part No. : B-320  
 Material : N/A

**2. In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB) with its amendment, Section 31, and article 3 of EU Regulation (EC) No 1935/2004**

a) Sensorial examination of odour and taste

Test Method: With reference to DIN10955: 2004

Migration condition: 40 °C for 10 days

Test Simulant: Water

The number of panelists: 6

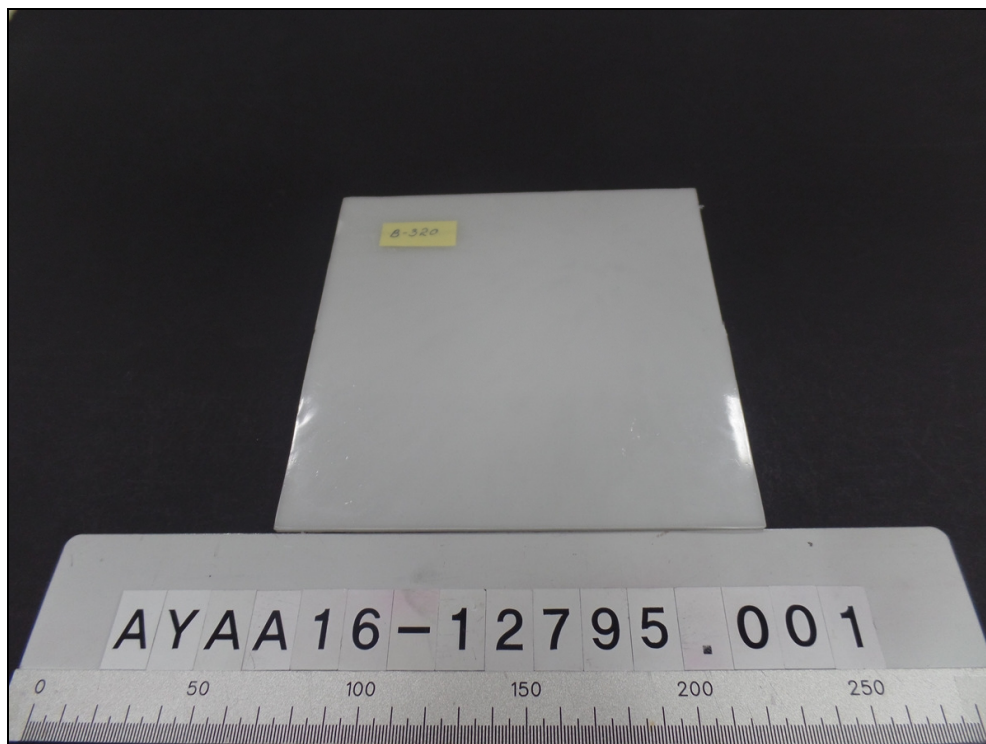
Test Results :

| Test Simulant  | Test Item                   | Result      | Maximum Permissible Limit |
|----------------|-----------------------------|-------------|---------------------------|
| Water          | Sensorial examination odour | 0.5         | 2.5                       |
|                | Sensorial examination taste | 0.5         | 2.5                       |
| <b>Comment</b> |                             | <b>PASS</b> | --                        |

Note : 1. Intensity scale (rounded at 0.5):

- 0 – no perceptible difference
- 1 – just perceptible difference
- 2 – slight difference
- 3 – marked difference
- 4 – strong difference

2. Permissible Limit is according to LFGB with its amendment, Section 30 and 31, and Regulation (EC) No 1935/2004 of The European Parliament and of the Council of 27 October 2004.



Signed and dated in Tashkent  
00th of March 2016

For and on behalf of  
SGS Tashkent Ltd. FE