



INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a. s.
tř. T.Bati 299, 764 21 Zlín – Czech Republic

Testing laboratory

ATTEST

No. 472104525

On sample:
PE-HD gloves type EURO/standart

Client:
EURO Enterprise s. r. o.
Statky č.p. 198, 783 01 Olomouc
ID: 25396251

Values obtained and the assessment of the technical parameters:

Evaluated parameters of the **sample meet requirements of the Decree of the Health Ministry No. 38/2001 Coll.**, as amended, *for plastic products, intended into a contact with the foodstuffs* and of the **Commission Directive 2002/72/EC**, as amended, *concerning the plastic materials intended into a contact with the foodstuffs*.

The evaluated sample do not negatively influence the sensorial properties of the foodstuffs.

Evaluated parameters of the sample **meet requirements of the European parliament and Council regulation No. 1935/2004 article 3** – general requirements for materials and articles intended into the contact with foodstuffs.

The evaluated sample meet the above mentioned regulations for short-term contact with dry, aqueous and fatty foods and food types under the common ambient temperatures up 40°C and ratio 100g (100ml) food/100 cm² product surface and higher.

Issued on: January 14, 2011
Valid till: January 31, 2014



Doc. Ing. Vladimír Klepal, CSc.
Head of the testing laboratory

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No. 472104525

Table I: Sample ITC No. 472104525/1 – PE-HD gloves type EURO/standart, transparent

Evaluated parameter	Unit	Value obtained ¹⁾	Measurement uncertainty ²⁾	Limit ³⁾
Overall migration into food simulants (surface/volume ratio: 100 cm ² /100 ml of food simulant)				
Simulant A – distill. water voda (40°C, 1 h)	mg/dm ²	0,5 0,6 0,6 ø 0,6	2 ²⁾	max. 10
Simulant D 1 – 95 % ethanol (40°C, 1 h)	mg/dm ²	2,1 2,2 1,6 ø 2,0	3 ²⁾	max. 10
Simulant D 2 – isooctane (20°C, 1 h)	mg/dm ²	1,8 1,7 1,8 ø 1,8	3 ²⁾	max. 10
Organoleptic properties - food simulant: overdone drinking water, 1 hour, 23 °C				
Organoleptic properties - flavour	level	0 ⁴⁾	-	max. 1
Organoleptic properties - odour	level	0 ⁴⁾	-	max. 1
Stabilizers	-	S1 ⁵⁾ S2 ⁶⁾	-	- ⁷⁾
Specific migration of stabilizer S2 ⁶⁾ - octadecyl-3-(3,5-di-terc.butyl-4-hydroxyphenyl)propionate; REF.No. 68320, CAS No. 002082-79-3 into food simulants (surface/volume ratio: 60 cm ² /100 ml of food simulant)				
Simulant A – distill. water voda (40°C, 1 h)	mg/kg	< 1	-	max. 6
Simulant D 1 – 95 % ethanol (40°C, 1 h)	mg/kg	< 1	-	max. 6
Simulant D 2 – isooctane (20°C, 1 h)	mg/kg	< 1	-	max. 6

Notes to the table I.:

¹⁾ Symbol „<“ means LOD (limit of detection) of used analytical method

²⁾ Measurement uncertainty of overall migration - defined in the document Decree No. 38/2001 (Collection of Laws), as amended

³⁾ Limit values according to Ministry of Health's Decree No. 38/2001 (Collection of Laws) as amended

⁴⁾ Odour and flavour expressed in the scale:

0 – without unacceptable odour or flavour

1 – weak odour or flavour, or small differences between tested samples and comparative samples

2 – apparent odour or flavour

3 – strong odour or flavour

⁵⁾ Stabilizer S1 = phosphorous acid, tris(2,4-di-terc.butylphenyl)ester; REF No. 74240, CAS No. 031570-04-4, use without restriction

⁶⁾ Stabilizer S2 = octadecyl-3-(3,5-di-terc.butyl-4-hydroxyphenyl)propionate; REF. No. 68320, CAS No. 002082-79-3, SML= 6 mg/kg

⁷⁾ Types of stabilizers are shown in the positive list of substances which may be used in the manufacture of plastic materials of the Health's Decree No. 38/2001 (Collection of Laws), as amended

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Table II: Sample ITC No. 472104525/1 – PE-HD gloves type EURO/standart, transparent content of toxic heavy metal

Evaluated parameter	Unit	Value obtained ¹⁾	Limit ²⁾
- Pb content	mg/kg	< 2,0	-
- Cd content	mg/kg	< 2,0	-
- total Cr content	mg/kg	< 2,0	-
- hexavalent Cr content	mg/kg	< 2,0 ³⁾	-
- Ba content	mg/kg	< 10,0	-
- Hg content	mg/kg	< 1,0	-
- Se content	mg/kg	< 2,0	-
- Sb content	mg/kg	< 2,0	-
- As content	mg/kg	< 1,0	-

Notes to the table II:

¹⁾ Symbol „<“ means LOD (limit of detection) of used analytical method

²⁾ Limit values according to Ministry of Health's Decree No. 38/2001 (Collection of Laws) as amended - used fillers cannot contain compounds based on – Pb, Cd, Cr⁶⁺, Ba, Hg, Se, Sb, As and leachable Ba

³⁾ The value of the content of hexavalent chromium determined from the total chromium content

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Sample description and identification:

The product sample – **PE-HD gloves type EURO/standart, transparent** - was received for testing and registered under ITC No. **472104525/1** (see Figure No. 1).



Figure No.1: **PE-HD gloves type EURO/standart, transparent**, sample ITC No. 472104525/1

Sampling method used:

The sample was supplied to the laboratory by the client. The laboratory is not responsible for mistakes caused by the wrong way of sampling.

Request:

Evaluation of hygienic parameters according to the Czech Ministry of Health Decree No. 38/2001 Coll. – "Hygienic requirements for materials intended to come into contact with foodstuffs" as amended. The plastic materials were evaluated according to the Directive 2002/72/EC and European parliament and Council regulation No. 1935/2004.

The following tests were performed:

1. determination of overall migration into food simulant A-distilled water according to the ČSN EN 1186 part 1, 3
2. determination of overall migration into substitute food simulants D (D1-95% ethanol, D2-isooctane) according to the ČSN EN 1186 part 1, 14
3. determination of organoleptic properties according to the internal regulation ITC A-04-43
4. determination of toxic heavy metal content according to the internal regulation ITC A-98-09 by XRF method
5. determination of phenolic stabilizers and non-phenolic stabilizers and lubricants according by TD-GCMS method according to the internal regulation ITC A-07-71
6. determination of specific migration of stabilizer Irganox 1075 (Ref No. 68320, CAS No. 2082-79-3) according to the internal regulation ITC A-96-35 method E

Test equipment used:

ad 1. and 6. See Test report of accredited laboratory No. 472104525.

Test conditions:

ad 1. and 6. See Test report of accredited laboratory No. 472104525.

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INSTITUT PRO TETOVÁNÍ A CERTIFIKACI, a. s.
tř. T. Bati 299, 764 21 Zlín, Czech Republic
Testing Laboratory

Attest No. 4721004525

Testing laboratory:

All tests were performed in ITC, Zlín.

Test results:

See Test report of accredited laboratory No. 472104525 and page No. 2 and 3 of this document.

Tested by:

ad 1. and 6. See Test report of accredited laboratory No. 472104525.

Comments on and interpretation of the results obtained:

The assessed sample of PE-HD gloves type EURO/standart, transparent is intended for contact with foodstuffs. Requirements for products intended for contact with foodstuffs are listed by the Ministry of Health's Decree No. 38/2001, Collection of Laws, as amended, by Commission Directive 2002/72/EC, as amended and by European parliament and Council regulation No. 1935/2004.

According to the § 3 article 1 all the products must be produced in such a quality so that under common conditions of use these products must not release any substances that can negatively influence the quality of the food, human health or to change sensorial properties of the food. Tests carried out according to ITC's test method A-04-43 showed that the evaluated product sample does not influence the sensorial properties of the food (See Test report of accredited laboratory No. 472104525 and the table given on the page 2 of this document). **Requirements of the § 3 of the article 1 are met.**

The assessed sample doesn't contain fillers based on antimony, arsenic, hexavalent chromium, cadmium, lead, mercury and selenium compounds (see the Accredited Laboratory Test Report, reference No. 472104525 and the table given on page 3 of the present Attest). **The requirements of the § 6 of the article 3 are met.**

The amount of substances released into the foodstuffs was determined according to ČSN EN 1186, Parts 1, 3 and 14 (see the Accredited Laboratory Test Report, reference No. 472104525 and the table given on pages 2 of the present Attest). The quantity of the constituents released from the product into the food simulants did not exceed the limit down given in the Decree No. 38/2001, Collection of Laws and in directive 2002/72/EC, i.e. (10 ± 2) mg per square decimeter. **The requirement of the § 12 of the article 1 are met.**

In the sample of PE-HD gloves type EURO/standart, transparent was identified stabilizer = *octadecyl-3-(3,5-di-terc.butyl-4-hydroxyphenyl)propionate*; REF.No. 68320, CAS No. 002082-79-3, SML= 6 mg/kg. Type of stabilizer is shown in the positive list of substances which may be used in the manufacture of plastic materials of the Health's Decree No. 38/2001 (Collection of Laws), as amended. SML of stabilizer did not exceed the limit laid down in the Decree No. 38/2001 and EC directive 2002/72/EC i.e. 6 mg/kg (see the Accredited Laboratory Test Report, reference No. 472104525 and the table given on page 2 of the present Attest). **The requirements of the § 13 of the articles 1 are met.**

In compliance with Article 3 of the Regulation No. 1935/2004 of the European Parliament on materials and articles intended to come into contact with foodstuffs must be manufactured in such a way that under usual or foreseeable conditions of use they shall not release their constituents into foodstuffs in quantities not to endanger human health or to bring about an unacceptable change in the composition of the food or a deterioration in its organoleptic properties.

The assessed PE-HD gloves type EURO/standart, transparent meet the requirements laid down in the Article 3 of the Regulation No. 1935/2004/EU of the European Parliament.

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tř. T. Bati 299, 764 21 Zlín, Czech Republic
Testing Laboratory

Attest No. 4721004525

Comments on and interpretation of the results by:

Dipl. Ing. Miroslav Rafaj, January 14, 2011

Conclusion:

The comparison of obtained results with limits of Decree No. 38/2001 Coll., as amended, Commission Directive 2002/72/EC, as amended, European parliament and Council regulation No. 1935/2004 and evaluation of the conformity with these documents are mentioned on the pages 1, 2 and 3 of this Attest.



Ing. Jiří Samsoněk, Ph.D.
Head of the laboratory of
analytical chemistry and microbiology