



LABEKO, s.r.o.

Krajinská cesta 2929, 921 01 Piešťany, Slovakia
Accredited testing laboratories
according to ISO / IEC 17025:2017



Test report no.: 25/00333

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Customer : SLOVARM, a.s.
(name and address) Dolná 1259/2, 907 01 Myjava, Slovakia

The date of sample receiving 23.01.25

The date of the test from : 27.01.25
to : 11.02.25

Samples taken : The samples sending by customer

Date of the test report: 12.02.25

The Test Results

Ser.No.	1	Sample number	25-000267	Sample type :	Materials and products intended into contact with drinking water
Sample identification :	Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm Manufacturer : Viraj Profiles Private Limited, Survey No. -25/1, 25/2, 26 &34 , Village -MAAN, Taluka -PALGHAR, Dist. PALGHAR, MAHARASHTRA - 401 506, INDIA				

Sample Identification :

The functional surface of the tested material **Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm** is intended into contact with drinking water. The supplied test samples were tested in accordance with the requirements of the Decree of Ministry of Health of the Slovak Republic No. 550/2007 Coll.

Conditions of migration tests:

Extracts from submitted samples were prepared according to the Annex to the Decree of Ministry of Health of the Slovak Republic No. 550/2007 Coll.

For migration tests were used two identical samples.

The ratio of the tested surface of the sample to the volume of experimental water : 220,0 cm² : 220,0 cm³ (1,00 cm² : 1,00 cm³)

Sample pretreatment :

1. Stagnation : (24 ± 0,5) hours at (23 ± 2) °C in tap water .
2. Rinsing with tap water 60 min. with flow (5 ± 2) ml/s and rinsing with experimental water 2 min.

Migraton test procedure :

Three consecutive extracts - 72 hour at (23 ± 2) °C for each extract by using experimental water
Under the same conditions a blank experiment with the experimental water without the tested sample was carried out.
Experimental water : deionised water with the conductivity < 2 mS/m and TOC < (0,2 ± 0,1) mg/l

The test results are shown in the following tables :

Table No.1
The sample No. 25-000267 Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm .
Measured values for the 1st migration test.

Parameter	Unit	Measured values ¹⁾			Uncertainty ²⁾ (k=2)	Methods used	Test type
		Parallel determinations		Blank			
		K ₁	K ₁	K _{0;1}			
Cadmium (Cd)	µg/l	< 1,0	< 1,0	< 1,0	-	P-01,STN EN ISO 11885	A
Lead (Pb)	µg/l	< 2,0	< 2,0	< 2,0	-	P-01,STN EN ISO 11885	A
Chromium (Cr)	µg/l	< 5,0	< 5,0	< 5,0	-	P-01,STN EN ISO 11885	A
Nickel (Ni)	µg/l	< 2,0	< 2,0	< 2,0	-	P-01,STN EN ISO 11885	A
Manganesse (Mn)	µg/l	4,0	4,0	< 2,0	-	P-01,STN EN ISO 11885	A
pH		6,70	6,72	6,68	2 %	P-03, STN ISO 10523	A

K₁ – concentration of migrating substances of the 1st parallel migration test for migration time 72 hours and temperature (23 ± 2) °C

K_{0;1} – average value of concentration of migrating substances in parallel blank experiment for migration time 72 hours and temperature (23 ± 2) °C

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Table No.2
The sample No. 25-000267 Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm .
Measured values for the 2nd migration test.

Parameter	Unit	Measured values ¹⁾			Uncertainty ²⁾ (k=2)	Methods used	Test type
		Parallel determinations		Blank			
		K ₂	K ₂	K _{0;2}			
Cadmium (Cd)	µg/l	< 1,0	< 1,0	< 1,0	-	P-01,STN EN ISO 11885	A
Lead (Pb)	µg/l	< 2,0	< 2,0	< 2,0	-	P-01,STN EN ISO 11885	A
Chromium (Cr)	µg/l	< 5,0	< 5,0	< 5,0	-	P-01,STN EN ISO 11885	A
Nickel (Ni)	µg/l	< 2,0	< 2,0	< 2,0	-	P-01,STN EN ISO 11885	A
Manganese (Mn)	µg/l	3,0	4,0	< 2,0	-	P-01,STN EN ISO 11885	A
pH		6,71	6,69	6,66	2 %	P-03, STN ISO 10523	A

K₂ – concentration of migrating substances of the 2nd parallel migration test for migration time 72 hours and temperature (23 ± 2) °C

K_{0;2} – average value of concentration of migrating substances in parallel blank experiment for migration time 72 hours and temperature (23 ± 2) °C

Table No. 3
The sample No. 25-000267 Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm .
Measured values for the 3rd migration test.

Parameter	Unit	Measured values ¹⁾			Uncertainty ²⁾ (k=2)	Methods used	Test type
		Parallel determinations		Blank			
		K ₃	K ₃	K _{0;3}			
Cadmium (Cd)	µg/l	< 1,0	< 1,0	< 1,0	-	P-01,STN EN ISO 11885	A
Lead (Pb)	µg/l	< 2,0	< 2,0	< 2,0	-	P-01,STN EN ISO 11885	A
Chromium (Cr)	µg/l	< 5,0	< 5,0	< 5,0	-	P-01,STN EN ISO 11885	A
Nickel (Ni)	µg/l	< 2,0	< 2,0	< 2,0	-	P-01,STN EN ISO 11885	A
Manganese (Mn)	µg/l	3,0	4,0	< 2,0	-	P-01,STN EN ISO 11885	A
pH		6,70	6,68	6,66	2 %	P-03, STN ISO 10523	A
Taste (TFN)	deg.	1	1	1	-	STN EN 1622	N

K₃ – concentration of migrating substances of the 3rd parallel migration test for migration time 72 hours and temperature (23 ± 2) °C

K_{0;3} – average value of concentration of migrating substances in parallel blank experiment for migration time 72 hours and temperature (23 ± 2) °C

Notes to the tables No.1 - No.3 :

¹⁾ symbol "<" means less than limit of method detection

²⁾ Uncertainty means expanded combined standard relative uncertainty (extension factor k = 2)

A - accredited test, N- nonaccredited test

TFN (taste threshold)

(deg.) - degree / unit for taste according to STN EN 1622

P-01, P-03 Internal regulation LABEKO,s.r.o.



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Table No.4
The sample No. 25-000267 Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm .
Summary results of the testing according to Decree No. 550/2007 Coll.

Parameter	Units	$K_{72^{23}} ;1$	$K_{72^{23}} ;2$	$K_{72^{23}} ;3$	Limit values ^{A)}	Evaluation	$M_{24^{23}} ;3$ (mg.dm ⁻² . day ⁻¹) or (µg.dm ⁻² . day ⁻¹)
Cadmium (Cd)	µg/l	< 1,0	< 1,0	< 1,0	5,0	meets	< 0,0333
Lead (Pb)	µg/l	< 2,0	< 2,0	< 2,0	10,0	meets	< 0,0666
Chromium (Cr)	µg/l	< 5,0	< 5,0	< 5,0	50,0	meets	< 0,1665
Nickel (Ni)	µg/l	4,0	3,5	3,5	20,0	meets	0,1166
Manganesse (Mn)	µg/l	< 2,0	< 2,0	< 2,0	50,0	meets	< 0,0666
pH	-	6,71	6,70	6,69	6,5 - 9,5	meets	-
Taste (TFN)	deg.	-	-	1	max. 2	meets	-

$K_{72^{23}} ;1$ - concentration of migrating substances expressed as arithmetic mean of parallel determinations after subtraction of blank conc. for the 1st migration test at (23 ± 2)°C and time 72 hours
 $K_{72^{23}} ;2$ - concentration of migrating substances expressed as arithmetic mean of parallel determinations after subtraction of blank conc. for the 2nd migration test at (23 ± 2)°C and time 72 hours
 $K_{72^{23}} ;3$ - concentration of migrating substances expressed as arithmetic mean of parallel determinations after subtraction of blank conc. for the 3rd migration test at (23 ± 2)°C and time 72 hours
 $M_{24^{23}} ;3$ - migration value of the 3rd migration test calculated from $K_{72^{23}} ;3$ for temperature (23 ± 2) °C and for migration time 24 hrs

Notes to the tables No.4 :

^{A)} limit value according to Annex No.1 to the Decree No. 91/2023 Coll. as amended
TFN (taste threshold)
symbol "<" means less than limit of method detection
(deg.) - degree / unit for taste according to STN EN 1622

Compliance / non-compliance with requirements :

The evaluation of the material **Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm** intended for contact with drinking water was carried out according to the requirements of Decree of Ministry of Health of the Slovak Republic No.550/2007 Coll. and according to the requirements of Decree of Ministry of Health of the Slovak Republic No. 91/2023 Coll. as amended. Verification of health requirements and the evaluation of the test results according to Decree No. 550/2007 Coll., paragraph 3 was performed according to the Annex of this Decree.

For the health evaluation of the tested product were used according to annex of Decree of Ministry of Health of the Slovak Republic No. 550/2007 Coll., section 13, concentrations of migrated substances from the 3rd migration test ($K_{72^{23}} ;3$). According to the Act No.103/2015 Coll., paragraph 18 (Products intended for contact with drinking water) the amount of released substances from the products intended for the contact with drinking water must not exceed the limit values of these substances for drinking water according to Decree of Ministry of Health of the Slovak Republic No. 91/2023 Coll., Annex 1.

The measured values and results of the determination of migrating substances are given in the Tables 1 to No.3. The calculated concentrations of migrating substances from the 3rd migration test ($K_{72^{23}} ;3$) listed in the Table No.4 **do not exceed** relevant limit values of these substances according to Annex 1 of Decree of Ministry of Health of the Slovak Republic No. 91/2023 Coll.

All monitored indicators **meet** the above legislative requirements.

The tested product does not affect sensory properties (taste) of drinking water.



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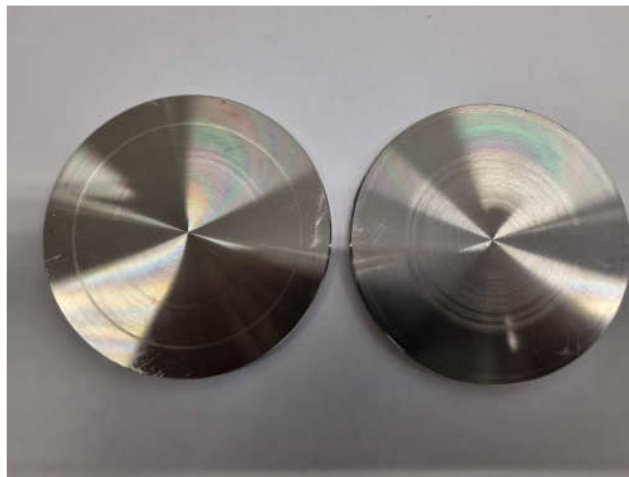
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The results of the assessment according to Decree of Ministry of Health of the Slovak Republic No. 550/2007 Coll. indicate :

The tested material " Stainless steel 1.4301/AISI 304 Ø 100 x 5,7 mm " manufactured by Viraj Profiles Private Limited, Survey No. -25/1, 25/2, 26 &34 , Village -MAAN, Taluka -PALGHAR, Dist. PALGHAR, MAHARASHTRA - 401 506, INDIA meets the requirements of Decree of Ministry of Health of the Slovak Republic No.550/2007 Coll. for the products intended to come into contact with drinking water.

Based on the achieved results of the health evaluation we can recommend the tested material for the production of the entire range of products designed for direct contact with drinking water.

Photograph of the tested product :



Notice :

Our statement only refers to the materials of the submitted sample of the product. The conclusions resulting from this evaluation may be applied also to other similar products (of this manufacturer) intended into contact with drinking water provided that used materials (direct coming into contact with drinking water) in this products are identical and their composition and properties completely correspond to the sample of the product we tested.

*Testing equipment and measuring tools used for testing were calibrated and verified within the meaning of the valid metrological directives.
The test results refer exclusively to the subject of the test and they do not substitute other documents (e.g. of administrative character) which are, under the specific directives, required by the bodies of governmental professional supervision. The protocol may be copied only as a whole; in parts only with the permit of the testing laboratory.*

The test report approved by : Ing. Roman Hudec ,
the Head of Ecoanalytic laboratories



*** End of Report ***