

CELOS Glove Nitrile 2.20

Dear Valued Customer,

This data sheet shall give an overview of results for food contact testing of Cleanroom CELOS Glove Nitrile 2.20. The results below reflect migration testing in according to the test specification § 31 LFGB (German Food and Feed Code).

The product complies with the total migration limit as described. According to the kind and extent of tests performed the test item meets the requirements of the test specification LFGB §31 and is therefore suitable for contact with foodstuff.

Parameter	Test method - Standard	Result
Sensory analysis	DIN 10955:2024	Pass
Smell transfer		Pass
Transfer of taste		Pass
Overall migration	DIN EN 1186 ff.:2002	See table below
Overall migration, MPPO	DIN EN 1186-13:2002	See table below
Acrylonitrile, migration	DIN EN 13130-3:2004	See table below
1,3-Butadiene, migration	DIN CEN / TS 13130-15:2005	See table below
Formaldehyde, content	DIN CEN / TS 13130-23:2005	See table below
Primary aromatic amines, migration	In-house method HPLC-MS/MS - quantification by MS-0036943:2020	Pass
Color migration of pigmented plastics	BGESUNDHBL 15 (1972): 285	See table below
Metals, total content at decomposition	ICP-OES according to DIN EN ISO 11885; In-house method - quantification by MS-0022823:2023	See table below
Migration of heavy metals, rubber	ISP-MS according to DIN EN IS 17294-2:2023; In-house method - quantification by MS-0022823:2023	See table below
N-nitrosamines and N-nitrosatable substances	DIN EN 12868:2017	Pass
Polycyclic aromatic hydrocarbons (PAH)	AfPS GS 2019:01 PAK:2019	Pass

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Sensory analysis

	Contact medium	Pass / Fail
Smell transfer	Water	Pass
Transfer of taste	Water	Pass

The samples comply with the requirements of § 31 Para. 1 LFGB or Article 3 of Regulation (EC) 1935/2004 and article 4 of Consumer Goods Ordinance 817.023.21 (CH).

Overall migration

	Overall Migration (mg /dm ²)	Pass / Fail
Acetic Acid 3%	5.1	Pass
Ethanol 50%	9.3	Pass

The samples comply with the limit value for products in contact with food according to the Commission Directives 2006/141/EC and 2006/125/EC.

Overall migration, MPPO

	Overall Migration (mg /dm ²)	Pass / Fail
MPPO	3.9	Pass

The samples comply with the limit value for products in contact with food according to the Commission Directives 2006/141/EG and 2006/125/EG.

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Migration of Acrylonitrile and 1,3 – Butadiene

Migration Solution	Acrylonitrile		1,3 - Butadiene	
	Oil	Acetic Acid 3%	Oil	Acetic Acid 3%
Results (mg/kg)	Not detectable	Not detectable	Not detectable	Not detectable
Pass / Fail	Pass	Pass	Pass	Pass

The samples comply with limit value for products in contact with foodstuffs according to the Regulation (EU) No 10/2011 and Consumer Goods Ordinance 817.023.21 (CH).

Formaldehyde content

	Result (mg /l)	Pass / Fail
Formaldehyde	< 1	Pass

The samples comply with the requirements according to the recommendation of the BfR part XXI "Commodities based on Natural and Synthetic Rubber".

Color migration of pigmented plastics

	Contact medium	Pass / Fail
Color fastness	Water	Pass
Color fastness	Acetic acid 3%	Pass
Color fastness	Ethanol 50%	Pass
Color fastness	Coconut oil	Pass

The samples comply according to the recommendation of the BfR part IX „Colourants for colouring plastics and other polymers for consumer goods“, „synthetic materials in food transport“ respectively Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food, no traces of colour may migrate into the food simulant.

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Metals, total content at decomposition

	Result (%)	Pass / Fail
Lead	< 0.0005	Pass
Cadmium	< 0.0005	Pass

The samples comply according to the Regulation (EC) No 1907/2006 (REACH). Duty to communicate on SVHC, if the concentration of elementary lead or cadmium in the article is higher than 0.1% (m/m).

Migration of metals, rubber

	Result (mg/kg food simulant)	Migration solution	Pass / Fail	Requirement
Aluminium	0.011	Acetic acid 3%	Pass	Aluminium content: Categories 1, 2 and 3: max. 1 mg/kg food or food simulant
Lead	< 0.01	Acetic acid 3%	Pass	Lead content: Categories 1, 2 and 3: not detectable (< 0.001 mg/kg food or food simulant)
Zinc	7.2	Acetic acid 3%	Pass	Zinc content: Categories 1,2 and 3: 25 mg/kg food or food simulant

*Category 1-Materials intended to be put in mouth or materials for toys intended to come into contact and with prolonged contact with the skin (longer than 30 s).

*Category 2-Materials not covered by category 1 with foreseeable contact to skin for longer than 30 seconds (longer term skin contact) or repeated short term skin contact.

*Category 3-Materials not covered by category 1 or 2 with foreseeable contact to skin up to 30 seconds (short term skin contact).

The samples comply with the requirement according to BfR recommendation XXI "Consumer goods based on natural and synthetic rubber".

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