

Certificate

Food regulatory evaluation of ViskoTeepak's Wienie-Pak® cellulose casing

Customer: ViskoTeepak Belgium NV
3920 Lommel
Belgium

Order No: PA/4905/20

Samples: Sausage casings, cellulose based
Sample No. 18, code 18, smash-vegetable oil
Sample No. 19, code 20O, smash-mineral oil
Sample No. 20, code 23O, Passover Rapid Peel /
Passover mineral oil
Sample No. 21, code 16W, Standard Rapid Peel
vegetable oil
Sample No. 22, code 26O, Standard Rapid Peel
mineral oil
Sample No. 23, code 18O, RP-E vegetable oil
Sample No. 24, code 16O, RP-E mineral oil

Total pages of certificate: 3

Date of certificate: 28.10.2021

The sample materials to which this certificate relates to were investigated within Fraunhofer IVV order PA/4905/20. Within this order, the overall migration of the casings was determined (Fraunhofer IVV test report PA/4905/20 dated 17.03.2021).

Scope

ViskoTeepak's Wienie-Pak® casings are cellulose based casings. The casings shall be used at different processing and storage conditions including e.g. stuffing, reddening, drying smoking, cooking and ripening as described in detail in test reports PA/4905/20. The intended applications include the packaging of cheese, meat and sausage products (e.g. dry sausages).

Compliance of the cellulose casings with the regulatory safety requirements of Article 3 of the European Framework Regulation (EC) No 1935/2004 was investigated. For this purpose, ViskoTeepak disclosed the formulation of the Wienie-Pak® casings to Fraunhofer IVV.

Food regulatory status of the used components

Based on ViskoTeepak's information on the formulation of the Wienie-Pak® casings the food regulatory status of the used components and raw materials was evaluated according to the following European and US American legislative requirements for food contact materials:

- Plastics Regulation (EU) No 10/2011 (last amendment by Regulation (EU) No 2020/1245) - Strictly speaking cellulose based casings are not covered by the Plastics Regulation (EU) No 10/2011. However, this regulation may also be used for the assessment of other materials than plastics that are not yet regulated on EU level.
- BfR Recommendations on Food Contact Materials, e.g. XXXVI. "Paper and Board for Food Contact" (as of 01.04.2021)
- 21 Code of Federal Regulations, e.g. 21 CFR § 176.170 "Components of paper and paperboard in contact with aqueous and fatty foods" (revised as of 01.04.2020) and 21 CFR § 178.3400 "Emulsifiers and/or surface-active agents" and evaluation of GRAS (Generally recognized as safe) status

Overall migration analyses:

To date, there are no specific regulations established for cellulose or fibrous materials used in direct contact to food at the European level. In order to evaluate compliance with the inertness requirements of Article 3 of the Framework Regulation (EC) No 1935/2004, the overall migration from the Wienie-Pak® cellulose casings into food simulants was determined following the rules for migration and compliance testing set out by Annex III and V of the European Plastics Regulation (EU) No 10/2011.

These overall migration values were evaluated based on the overall migration limit set out for plastic material used in contact with food according to the European Plastics Regulation (EU) No 10/2011.

The cellulose casings Wienie-Pak® sample no 18 to 24 were investigated for the overall migration into 10 % ethanol and 3 % acetic acid by total immersion at the contact conditions 2 h by reflux followed 10 days at 40 °C according to the European Standard EN 1186-3. In addition, the overall migration was also determined into the food simulants 95 % ethanol and isooctane (as alternative food simulants for olive oil) by total immersion at the contact conditions 24 hours at 40 °C (95 % ethanol) and 24 h at 60 °C followed 10 d at 40 °C (isooctane) according to the European Standard EN 1186-15, respectively EN 1186-14 (Fraunhofer IVV test report PA/4905/20, dated 17.03.2021).

The time and temperature conditions applied for the migration tests were determined based on the production process cycles as delivered by ViskoTeepak and are considered as extractive or worst case, respectively, due to the cellulose nature of the casings.

Food regulatory assessment:

The overall migration limit is 10 mg/dm² contact surface according to Art. 12 of the European Plastics Regulation (EU) No 10/2011 (last amendment by Regulation (EU) No 2020/1245).

The Plastics Regulation defines correction factors for different types of fatty food (Annex III, Table 2 of Regulation (EU) No 10/2011).

The investigated Wienie-Pak® casings are in compliance with the overall migration limit for fatty foods for which a correction factor of at least 3 is set

(e.g. meat, meat products, cheese, and fish) at all cooking applications up to 121 °C followed by long term storage at room temperature or below.

The overall migration into aqueous food simulants was exceeding the overall migration limit at the applied test conditions for some samples with mean values in the range of 12.4 mg/dm² to 15.7 mg/dm² and up to 34.8 mg/dm².

However, it should be noted that for papers, pulp or fibrous materials, overall migration limit used as reference value is often exceeded due to readily water-soluble natural ingredients. For the investigated cellulose casings, the customer provided additional information on the formulation of the cellulose-based casings to Fraunhofer IVV. As a common practice, this type of casings is treated by additives (plasticizers and/or humectants, such as glycerol, propylene glycols and vegetable and synthetic oils), which may significantly contribute to the overall migration values.

Taking into account the nature of the cellulose-based sample materials as well as the performed migration test for overall migration, the investigated Wienie-Pak® cellulose casings can be considered to be in compliance with the inertness requirements for food contact materials according to Article 3 of the European Framework Regulation (EC) No 1935/2004 for the intended application contact with meat products, sausage and cheese at the all cooking conditions up to 121 °C with subsequent long-term storage at room temperature and below.

Conclusion:

Based on the results of the overall migration analyses as well as on the information on the used raw materials provided by the client ViskoTeepak and its suppliers, we come to the conclusion that the investigated Wienie-Pak® cellulose casings no 18, 19, 20, 21, 22 23 and 24 are in compliance with the inertness requirements of Article 3 of the European Framework Regulation (EC) No 1935/2004 for the intended packaging of processed meat products (e.g. ham, salami, bacon, sausages) and natural cheeses.

Based on the information on the formulation of Wienie-Pak® no 18, 19, 20, 21, 22 23 and 24 provided by ViskoTeepak all used raw materials are authorized for the use in food contact materials either as indirect food additives according to 21 CFR § 176.170 "Components of paper and paperboard in contact with aqueous and fatty foods" or as adjuvants and production aids according to 21 CFR § 178.3400 "Emulsifiers and/or surface-active agents" or are approved as 'generally recognized as safe' (GRAS status).

Fraunhofer Institute
Process Engineering
and Packaging

Freising, 28.10.2021

Dr. Diana Kemmer
(Head Department Product Safety and Analytics)

Petra Schmid
(Scientist)