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Polypropylene Thermal Lamination Film Type: LuxeFilms[®] Karess[®] Matte Thermal OverLaminate

The polypropylene thermal Karess[®] lamination film in all above products branded as LuxeFilms[®] is designed for use in paper lamination for menus, book covers, secondary packaging, posters/signs, etc., and can also be used in food packaging applications.

CONFORMANCE EUROPEAN UNION (EU) FOOD CONTACT

Commission Regulation (EU) No. 10/2011 with Amendments and Article 3 of European Regulation No. 1935/2004.

Test Method: DIN EN 1186:2002

Analytical tolerance of the method (§ 64 LFGB B 8030-3 (EG)):

2 mg/dm2 for aqueous stimulants

3 mg/dm2 for olive oil and fat substitutes

Simulant	Test Condition	Result (mg/dm²)	Detection Limit (mg/dm ²)	Permissible Limit (mg/dm²)
3% Acetic Acid (W/V) Aqueous Solution	40± 2ºC for 10 Days	<1	1.0	10
95% Ethanol (V/V) Aqueous Solution	40± 2ºC for 10 Days	3	1.0	10
Isooctane	20± 1ºC for 2 Days	4	1.0	10
Comment	-	PASS	-	-

Note: 1. Permissible Limit is according to Commission Regulation (EU) No 10/2011 of January 2011 with amendments.

The Requirements of LFGB and Regulation (EU) No. 1935/2004 in the tested item. Test Method: DIN EN 1186-13:2002-12

Product	Simulant Used	Test Condition	Result (mg/dm²)	Permissible (mg/dm²)
ECT (LuxeFilms® Karess® Thermal Tactile Laminate Film)	Tenax	40± 2°C for 10 Days	4	10
	Comment		PASS	-



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Note: 1. Requirement: max. 10 mg/dm2 (Regulation (EU) No. 10/2011)

LIST OF FOOD SIMULANTS

Food Simulants	Abbreviation	Above Test	Result
Ethanol (10% (V/V)	Food Simulant A	95% Ethanol (V/V) Aqueous Solution	PASS
Acetic Acid 3% (W/V)	Food Simulant B	0.25	PASS
Ethanol 20% (V/V)	Food Simulant C	95% Ethanol (V/V) Aqueous Solution	PASS
Ethanol 50% (V/V)	Food Simulant D1	95% Ethanol (V/V) Aqueous Solution	PASS
Vegetable Oil	Food Simulant D2	95% Ethanol (V/V) Aqueous Solution + Isooctane	PASS
Poly (2,6-diphenyl-p-phenylene oxide) Particle size 60-80 mesh, pore size 200nm	Food Simulant E	Tenax	PASS

SPECIFIC MIGRATION OF HEAVY METAL ACCORDING TO REGULATION (EU) NO. 10/2011

Test Item	Result (mg/kg) 1 st Contact	Conclusion
Specific Migration of Aluminum	0.1	PASS
Specific Migration of Barium	0.1	PASS
Specific Migration of Cobalt	0.01	PASS
Specific Migration of Copper	0.5	PASS
Specific Migration of Iron	1.0	PASS
Specific Migration of Lithium	0.1	PASS
Specific Migration of Manganese	0.1	PASS
Specific Migration of Zinc	0.1	PASS
Specific Migration of Nickel	0.01	PASS



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ISOCYANATES

Test Method base on DIN EN 13130-8:2004

Sample(s) / Subsample(s)	Result (mg/kg)	Conclusion
Diphenylmethane-4, 4 diisocyanate	0.04	PASS
Diphenylmethane-2, 4 diisocyanate	0.04	PASS
Hexamethylene diisocyanate	0.05	PASS
2, 4-Toluene diisocyanate	0.05	PASS
2, 6-Toluene diisocyanate	0.05	PASS
Isophorone diisocyanate	0.04	PASS
Total Isocyanate (as NCO)	-	PASS

US FOOD AND DRUG ADMINISTRATION (FDA)

LuxeFilms® Karess® Matte Thermal OverLaminate complies with the following Food and Drug Administration Regulation:

177.1520 Olefin polymers. The olefin polymers listed in paragraph (a) of this section may be safely used as articles or components or articles intended for use in contact with food, subject to the provisions of this section.

For the purpose of this section, olefin polymers are basic polymers manufactured as described in this paragraph, so as to meet the specifications prescribed in paragraph (c) of this section, when tested by the methods described in paragraph (d) of this section.

(1) Olefin basic copolymers manufactured by the catalytic copolymerization of two or more of the monomers ethylene, propylene, butene-1-2 methylpropene-1, and 2,4,4,4-trimethylpentene-1 shall contain no less than 85 weight-percent of polymer units derived from ethylene and/or propylene; (2) Olefin basic copolymers manufactured by the catalytic copolymerization of propylene and butene-1 shall contain greater than 15 but not greater than 35 weight percent of polymer units derived from butene-1 with the remainder being propylene.

Olefin basic terpolymers manufactured by the catalytic copolymerization of ethylene, hexene-1, and either propylene or butene-1, shall contain not less than 85 weight percent polymer units derived from ethylene.



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Thus above mentioned LuxeFilms[®] Karess[®] Matte Thermal OverLaminate is suitable for food grade applications and the film is used in accordance with the Good Manufacturing Practice - GMP regulation (defined in 21 CFR 174.5) (In case of chemical treatment: The chemical primer may be used in contact with all types of food under all conditions of use that are technically suitable for these films, and such use may properly be described as complying with the Food, Drug, and Cosmetic Act of 1958 and all applicable indirect food additive regulations).

Please note that it is the responsibility of both the manufacturer of the finished food contact articles as well as the industrial food packer to ensure that the finished articles are in actual compliance with the specific and global migration limits. Our tests on the film cannot replace migration tests on the finished articles.

OTHER REGULATIONS

In accordance with the framework directive 89/109/EEC, these films are produced with good manufacturing practice (defined as compliance § 31(1) of the German LMBG and US 21 CFR § 175.5), under a quality management system certified to be in compliance with DIN EN ISO 9001.

We confirm that the heavy metals cadmium, mercury, lead and chromium6+ as such and their compounds are not used in the production of this film (LuxeFilms[®] Karess[®] Matte Thermal OverLaminate). the sum of these heavy metals from possible contaminations is below 100 ppm (DIN 38 406) and complies with Article 11 of EC Directive 94/62 EC (packaging and packaging waste) as well as with the CONEG Legislation in the USA.

This laminate film is not subject to label and hazardous chemical and are not classified as endangering to water. As waste, it does not require monitoring under the German waste Avoidance and Waste Management Act.

These laminate films (LuxeFilms[®] Karess[®] Matte Thermal OverLaminate) do not contain "BADGE" (Bisphenol A Diglycidyl Ether) or related compounds ("BFDGE" and "NOGE") and thus conforms to the requirements of EU Directive 2002/16 EC.

DISCLAIMER

The raw materials used in the manufacture of LuxeFilms[®] Karess[®] Matte Thermal OverLaminate are technical raw materials and therefore do contain process-related additives and impurities. Therefore, the above specified confirmations are based on Material Data Sheets and other information which were made available to us by our suppliers. Additional laboratory tests were not conducted by us.



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Any changes of the above-mentioned declarations which we are obliged to communicate we will communicate to our customers, accordingly.

The information and recommendations contained herein are based upon data believed to be up-to-date and correct. Nobelus[®] assumes no responsibility and disclaims all liability, if the damage is caused by improper use, unsuitable application purposes, and other parameters out of Nobelus[®] sphere of influence. In using our products, customers and users must comply with all applicable health and safety laws and regulations, in particular, customers are under obligation to carry out a risk assessment for the particular work places, a safety assessment under the (EU) food contact legislation and to adequate risk management measures. Although this material may have direct and/or indirect food safety certification(s), Nobelus[®] facilities do not claim to carry any food safety certifications.

The confirmation is valid from the date of issue and replaces all previous versions of this document, thereby invalidating them.

By following the above mentioned regulations, Nobelus[®] has fulfilled our duty of care regarding the conformance of the products we supply with legislation governing food contact applications. It is the responsibility of the user to test the suitability of our products for the intended application. We accept no liability for losses arising from inadequate suitability of our products for the food medium being used by you.

