

FOOD CONTACT SAFETY & EMISSION COMPLIANCE

Objective: Food Contact Safety and Emission testing of High Pressure Decorative Laminates (HPL) evaluates chemical migration, volatile organic compound (VOC) emissions, formaldehyde release, hygienic performance, and restricted substance content to ensure compliance with European and international safety regulations for food contact and indoor applications.

Validation: Testing is conducted in ISO/IEC 17025 accredited laboratories under ILAC recognition, in accordance with Commission Regulation (EU) No 10/2011, Regulation (EC) No 1935/2004, EN 1186, EN 13130, EN 16516, and international hygienic performance standards.

Results: Certified results confirm that HPL complies with applicable migration limits, emission requirements, and chemical safety regulations, making them suitable for use in food preparation areas, kitchens, healthcare, and other sensitive interior environments.

1. VOC & EMISSION COMPLIANCE

1.1 VOC Emission Test

Description: Evaluates Volatile Organic Compound (VOC) emissions from HPL to ensure suitability for indoor environments and compliance with indoor air quality requirements.

Standard: CDPH Standard Method v1.2

Test Results: All Listed Target VOCs reported: < 2 µg/m³. CDPH Compliant – PASS

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/cdph-voc-cgs.pdf>



1.2 Formaldehyde Emission Test

Description: Chamber based emission testing to measure the release of formaldehyde from laminate under controlled environmental conditions simulating indoor use.

Standard: EN 16516 + ISO 16000-3

Test Results: Formaldehyde Emission: 0.010 mg/m³. Qualifies under E0 emission level.

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/en-16516-formaldehyde-emission-test.pdf>



2. FOOD CONTACT SAFETY – MIGRATION TESTING

All food contact evaluations are conducted in accordance with EU Food Contact Regulation (EU) No. 10/2011 framework requirements for materials intended to come into contact with food.

2.1 Overall Migration Limit (OML)

Description: Gravimetric determination of the total quantity of non-volatile substances that migrate from laminate into food simulants under specified test conditions.

Standard: EN 1186

Test Results: Overall migration within permitted limit of 10 mg/dm² — complies.

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/overall-migration-en-1186.pdf>



2.2 Specific Migration of Bisphenol A (BPA)

Description: Quantitative chemical determination of Bisphenol A (BPA) migrating from HPL into food simulants under controlled time and temperature conditions.

Standard: EN 13130-1: 2004

Test Results: Not Detected

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/sml-bisphenol-a-en-13130.pdf>



2.3 Specific Migration of Formaldehyde

Description: Determination of formaldehyde migration from laminate surface into food simulant using validated analytical methods.

Standard: EN 13130-1: 2004

Test Results: 3 mg/kg reported against 15 mg/kg permissible limit – PASS.

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/sml-formaldehyde-en-13130.pdf>



2.4 Specific Migration of Phthalates

Description: Analytical determination of regulated phthalates migrating from HPL into food simulants under controlled time and temperature conditions.

Standard: EN 13130-1: 2004

Test Results: PASS (Complies with EU 10/2011 Specific Migration Limits).

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/sml-phthalates-en-13130.pdf>

3. ANTIMICROBIAL & HYGIENE PERFORMANCE

3.1 Antifungal Test

Description: Evaluates resistance of HPL surface against fungal growth under controlled laboratory conditions.

Standard: ASTM G21

Test Results: No fungal growth observed – Complies.

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/astm-g-21-antifungal-test.pdf>

3.2 Antiviral Activity Test

Description: To assess antiviral performance by measuring reduction of viral activity on laminate surface after defined contact period.

Standard: ISO 21702:2019

Test Results: Demonstrates antiviral activity as per standard requirements - Complies.

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/iso-21702-2019-antiviral-cer-bts-2500663-01.pdf>

3.3 Antibacterial Test

Description: Determines antibacterial effectiveness against specified bacterial strains.

Standard: JIS Z 2801:2010

Test Results: Antibacterial activity confirmed - Complies.

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/jis-z-2801-2010-antibacterial-test.pdf>

4. CHEMICAL SAFETY & RESTRICTED SUBSTANCES

4.1 PCP (Pentachlorophenol) Content

Description: Determination of Pentachlorophenol (PCP) content in HPL.

Standard: Article 3 of European Regulation No. 1935/2004

Test Result: Not Detected

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/pcp-content.pdf>



4.2 Arsenic Content

Description: Evaluation of arsenic presence and concentration of arsenic in laminate material.

Standard: LFGB (Germany), Section 30 & 31

Test Results: Not Detected

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/arsenic-content.pdf>



4.3 Pesticide Content

Description: Chemical analysis to detect and quantify restricted pesticide residues in laminate material.

Standard: With reference to US EPA Method 8081B, 3620B, 3630C.

Test Results: Not Detected

Link to Download Result: <https://www.virlaminate.com/assets/pdf/certifications/food-contact-safety-and-emission-compliance/pesticide-content.pdf>

