CERTIFICATE OF COMPLIANCE



PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818

Panolam Industries International Inc.

Pionite[®] High Pressure Laminates

1954-410

Certificate Number

04/04/2005 - 04/04/2021

Certificate Period

Certified

Status

UL 2818 - 2013 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Commercial furniture and furnishings are tested in accordance with ANSI/BIFMA M7.1-2011(R2016) and determined to comply with ANSI/BIFMA X7.1-2011(R2016) and ANSI/BIFMA e3-2014e Credit 7.6.1 in a Private Office environment.

Products tested in accordance with UL 2821 test method to show compliance to emission limits in UL 2818, Section 7.1.



GREENGUARD Certification Criteria for Building Products and Interior Finishes

| Criteria | CAS Number | Maximum Allowable Predicted Concentration | Units |
|--|------------|--|-------|
| TVOC(A) | - | 0.50 | mg/m³ |
| Formaldehyde | 50-00-0 | 61.3 (50 ppb) | µg/m³ |
| Total Aldehydes (B) | - | 0.10 | ppm |
| Particle Matter less than 10 μm $_{\text{(C)}}$ | - | 50 | µg/m³ |
| 4-Phenylcyclohexene | 4994-16-5 | 6.5 | µg/m³ |
| Individual VOCs (D) | - | 1/10th TLV | - |

(A) Defined to be the total response of measured VOCs falling within the C₆ – C₁₆ range, with responses calibrated to a toluene surrogate. Maximum allowable predicted TVOC concentrations for GREENGUARD (0.50 mg/m³) fall in the range of 0.5 mg/m³ or less, as specified in CDPH Standard Method v1.1.

- (B) The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.
- ^(C) Particle emission requirement only applicable to HVAC Duct Products with exposed surface area in air streams (a forced air test with specific test method) and for wood finishing (sanding) systems.
- (D) Allowable levels for chemicals not listed are derived from 1/10th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).



CERTIFICATE OF COMPLIANCE



GOLD

Panolam Industries International Inc.

Pionite[®] High Pressure Laminates

1954-420 Certificate Number

01/10/2020 - 04/04/2021

Certificate Period

Certified

Status

UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Commercial furniture and furnishings are tested in accordance with ANSI/BIFMA M7.1-2011(R2016) and determined to comply with ANSI/BIFMA X7.1-2011(R2016) and ANSI/BIFMA e3-2014e Credit 7.6.1, 7.6.2, and 7.6.3 in a Private Office Environment. Products also determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017 in the office environment.

Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.



| Criteria | CAS Number | Maximum Allowable Predicted Concentration | Units |
|--|------------|--|-------|
| TVOC (A) | - | 0.22 | mg/m³ |
| Formaldehyde | 50-00-0 | 9 (7.3 ppb) | µg/m³ |
| Total Aldehydes (B) | - | 0.043 | ppm |
| 4-Phenylcyclohexene | 4994-16-5 | 6.5 | µg/m³ |
| Particle Matter less than 10 μm $_{\text{(C)}}$ | - | 20 | µg/m³ |
| 1-Methyl-2-pyrrolidinone (D) | 872-50-4 | 160 | µg/m³ |
| Individual VOCs (E) | - | 1/2 CREL or 1/100th TLV | - |

GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

(A) Defined to be the total response of measured VOCs falling within the C6 – C16 range, with responses calibrated to a toluene surrogate. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m³) fall in the range of 0.5 mg/m³ or less, as specified in CDPH Standard Method v1.2.

(B) The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.

^(C) Particle emission requirement only applicable to HVAC Duct Products with exposed surface area in air streams (a forced air test with specific test method) and for wood finishing (sanding) systems.

^(D) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m³/day

(E) Allowable levels for chemicals not listed are derived from the lower of 1/2 the California Office of Environmental Health Hazard Assessment (OEHHA) Chronic Reference Exposure Level (CREL) as required per the CDPH/EHLB/Standard Method v1.2 and BIFMA level credit 7.6.2 and 1/100th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).

