Certificate of Compliance

Certificate

91244-410

Issue Date

22 Aug 2017

Expiry Date

22 Aug 2027

UL Verification Services does hereby certify that an independent assessment has been conducted on behalf of:

Atlas Roofing

for the following product:

EnergyShield PanelCast

The product has been evaluated and meets the requirements for:

GREENGUARD™

UL 2818 - 2022 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Building materials are determined compliant in accordance with an Office environment with an air change of 0.68 hr^{-1} and a loading of 11.10 m^2. ; and Wall finishes are determined compliant using an Office Environment with an air change of 0.68 hr^{-1} and a loading of 33.40 m^2.

Ranee Valles
Director and General Manager

UL Verification Services Inc.
2211 Newmarket Parkway, ste 106
Marietta, GA 30067 USA

UL Solutions evaluated representative samples of the identified product, process or facility to the identified Standard or other requirements in accordance with the agreements and any applicable program service terms in place between UL Solutions and the Client (collectively "Agreement"). The Client is authorized to use the UL Mark for the identified Product, process or facility covered by this certificate, in accordance with the terms of the Agreement. This Certificate is valid for the identified dates unless there is non-compliance with the Agreement. This certificate is subject to modification, suspension and withdrawal by UL Solutions see SPOT.ul.com, to authenticate the certificate.

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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 (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 C_6 – C_{16} 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 v1.2.

(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) 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).

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