## CERTIFICATE

## OF COMPLIANGE

## Knauf Insulation

30427-420

# Knauf Black Acoustical Board with ECOSE ${ }^{\circledR}$ Technology 

Certificate Number

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

## Status

Certified

## GOLD

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


 loading of $33.40 \mathrm{~m}^{2}$.
Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.

ANAB AP

 dates unless there is non-compliance with the Agreement.

GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria | CAS Number | Maximum Allowable Predicted Concentration | Units |
| :---: | :---: | :---: | :---: |
| TVOC (A) | - | 0.22 | $\mathrm{mg} / \mathrm{m}^{3}$ |
| Formaldehyde | 50-00-0 | 9 (7.3 ppb) | $\mu \mathrm{g} / \mathrm{m}^{3}$ |
| Total Aldehydes (B) | - | 0.043 | ppm |
| 4-Phenylcyclohexene | 4994-16-5 | 6.5 | $\mu \mathrm{g} / \mathrm{m}^{3}$ |
| Particle Matter less than $10 \mu \mathrm{~m}$ (c) | - | 20 | $\mu \mathrm{g} / \mathrm{m}^{3}$ |
| 1-Methyl-2-pyrrolidinone (0) | 872-50-4 | 160 | $\mu \mathrm{g} / \mathrm{m}^{3}$ |
| Individual VOCs (E) | - | $\begin{gathered} 1 / 2 \text { CREL } \\ \text { or } \\ \text { 1/10oth TLV } \end{gathered}$ | - |

(A) Defined to be the total response of measured VOCs falling within the $\mathrm{C}_{6}-\mathrm{C}_{16}$ range, with responses calibrated to a toluene surrogate. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold ( $0.22 \mathrm{mg} / \mathrm{m}^{3}$ ) fall in the range of $0.5 \mathrm{mg} / \mathrm{m}^{3}$ 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 $3,200 \mu \mathrm{~g} /$ day and an inhalation rate of $20 \mathrm{~m}^{3} /$ 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 $1 / 100$ th 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).

