

# CERTIFICATE OF COMPLIANCE



## Knoll, Inc. Remix Side Chair

78132-420

Certificate Number

04/25/2016 - 10/29/2017

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. Seating products are modeled in the seating environment with a ventilation rate of 24.8 m<sup>3</sup>/hour. Products also determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010.

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



**Environment**

## GREENGUARD Gold Certification Criteria for Individual Office Furniture Products

Criteria	CAS Number	Maximum Allowable Emission Factor		Units
		Open Plan	Private Office	
TVOC <sup>(A)</sup>	-	152	306	$\mu\text{g}/\text{m}^2\cdot\text{hr}$
Formaldehyde	50-00-0	6.2	12.5	$\mu\text{g}/\text{m}^2\cdot\text{hr}$
Total Aldehydes <sup>(B)</sup>	-	1.2	2.4	$\mu\text{mol}/\text{m}^2\cdot\text{hr}$
4-Phenylcyclohexene	4994-16-5	4.5	9.0	$\mu\text{g}/\text{m}^2\cdot\text{hr}$
1-Methyl-2-pyrrolidinone <sup>(C)</sup>	872-50-4	110	223	$\mu\text{g}/\text{m}^2\cdot\text{hr}$
Individual VOCs <sup>(D)</sup>	-	1/2 CREL or 1/100th TLV	1/2 CREL or 1/100th TLV	-

- (A) Defined to be the total response of measured VOCs falling within the C<sub>6</sub> – C<sub>16</sub> range, with responses calibrated to a toluene surrogate.
- (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) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200  $\mu\text{g}/\text{day}$  and an inhalation rate of 20  $\text{m}^3/\text{day}$ .
- (D) 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 v1.1 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).



**Environment**