

# CERTIFICATE OF COMPLIANCE



## Roland DG

### Roland Eco-Sol Max Ink

Restrictions: Certified for Signage Applications

29567-420

Certificate Number

04/12/2013 - 04/12/2018

Certificate Period

Certified

Status

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

Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using a Classroom Environment with an air change of  $0.82 \text{ hr}^{-1}$  and a loading of  $11.90 \text{ m}^2$ ; and Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using an Office Environment with an air change of  $0.68 \text{ hr}^{-1}$  and a loading of  $3.00 \text{ m}^2$ .

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



**Environment**

## GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria                                       | CAS Number | Maximum Allowable Predicted Concentration | Units             |
|--|------------|---|-------------------|
| TVOC <sup>(A)</sup>                            | -          | 0.22                                      | mg/m <sup>3</sup> |
| Formaldehyde                                   | 50-00-0    | 9 (7.3 ppb)                               | µg/m <sup>3</sup> |
| Total Aldehydes <sup>(B)</sup>                 | -          | 0.043                                     | ppm               |
| 4-Phenylcyclohexene                            | 4994-16-5  | 6.5                                       | µg/m <sup>3</sup> |
| Particle Matter less than 10 µm <sup>(C)</sup> | -          | 20  | µg/m <sup>3</sup> |
| 1-Methyl-2-pyrrolidinone <sup>(D)</sup>        | 872-50-4   | 160                                       | µg/m <sup>3</sup> |
| Individual VOCs <sup>(E)</sup>                 | -          | 1/2 CREL<br>or<br>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. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m<sup>3</sup>) fall in the range of 0.5 mg/m<sup>3</sup> 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) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/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 v1.1 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**

# CERTIFICATE OF COMPLIANCE



## Roland DG

### Eco-Sol Max 2 Ink

Restrictions: Certified for Signage Applications

29568-420

Certificate Number

04/12/2013 - 04/12/2018

Certificate Period

Certified

Status

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

Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using a Classroom Environment with an air change of  $0.82 \text{ hr}^{-1}$  and a loading of  $11.90 \text{ m}^2$ ; and Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using an Office Environment with an air change of  $0.68 \text{ hr}^{-1}$  and a loading of  $3.00 \text{ m}^2$ .

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



**Environment**

## GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria                                       | CAS Number | Maximum Allowable Predicted Concentration | Units             |
|--|------------|---|-------------------|
| TVOC <sup>(A)</sup>                            | -          | 0.22                                      | mg/m <sup>3</sup> |
| Formaldehyde                                   | 50-00-0    | 9 (7.3 ppb)                               | µg/m <sup>3</sup> |
| Total Aldehydes <sup>(B)</sup>                 | -          | 0.043                                     | ppm               |
| 4-Phenylcyclohexene                            | 4994-16-5  | 6.5                                       | µg/m <sup>3</sup> |
| Particle Matter less than 10 µm <sup>(C)</sup> | -          | 20  | µg/m <sup>3</sup> |
| 1-Methyl-2-pyrrolidinone <sup>(D)</sup>        | 872-50-4   | 160                                       | µg/m <sup>3</sup> |
| Individual VOCs <sup>(E)</sup>                 | -          | 1/2 CREL<br>or<br>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. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m<sup>3</sup>) fall in the range of 0.5 mg/m<sup>3</sup> 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) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/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 v1.1 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**

# CERTIFICATE OF COMPLIANCE



## Roland DG

### Eco-Sol MAX 3

Restrictions: Certified for Signage Applications

70664-420

Certificate Number

04/12/2013 - 04/12/2018

Certificate Period

Certified

Status

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

Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017 using a Classroom Environment with an air change of  $0.82 \text{ hr}^{-1}$  and a loading of  $11.90 \text{ m}^2$ ; and Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017 using an Office Environment with an air change of  $0.68 \text{ hr}^{-1}$  and a loading of  $3.00 \text{ m}^2$ .

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



**Environment**

## GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria                                       | CAS Number | Maximum Allowable Predicted Concentration | Units             |
|--|------------|---|-------------------|
| TVOC <sup>(A)</sup>                            | -          | 0.22                                      | mg/m <sup>3</sup> |
| Formaldehyde                                   | 50-00-0    | 9 (7.3 ppb)                               | µg/m <sup>3</sup> |
| Total Aldehydes <sup>(B)</sup>                 | -          | 0.043                                     | ppm               |
| 4-Phenylcyclohexene                            | 4994-16-5  | 6.5                                       | µg/m <sup>3</sup> |
| Particle Matter less than 10 µm <sup>(C)</sup> | -          | 20  | µg/m <sup>3</sup> |
| 1-Methyl-2-pyrrolidinone <sup>(D)</sup>        | 872-50-4   | 160                                       | µg/m <sup>3</sup> |
| Individual VOCs <sup>(E)</sup>                 | -          | 1/2 CREL<br>or<br>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. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m<sup>3</sup>) fall in the range of 0.5 mg/m<sup>3</sup> 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) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/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 v1.1 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**

# CERTIFICATE OF COMPLIANCE



## Roland DG

### Roland EJ-Ink

Restrictions: Certified for Signage Applications

80142-420

Certificate Number

06/06/2016 - 04/12/2018

Certificate Period

Certified

Status

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

Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using a Classroom Environment with an air change of  $0.82 \text{ hr}^{-1}$  and a loading of  $11.90 \text{ m}^2$ ; and Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using an Office Environment with an air change of  $0.68 \text{ hr}^{-1}$  and a loading of  $3.00 \text{ m}^2$ .

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



**Environment**

## GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria                                       | CAS Number | Maximum Allowable Predicted Concentration | Units             |
|--|------------|---|-------------------|
| TVOC <sup>(A)</sup>                            | -          | 0.22                                      | mg/m <sup>3</sup> |
| Formaldehyde                                   | 50-00-0    | 9 (7.3 ppb)                               | µg/m <sup>3</sup> |
| Total Aldehydes <sup>(B)</sup>                 | -          | 0.043                                     | ppm               |
| 4-Phenylcyclohexene                            | 4994-16-5  | 6.5                                       | µg/m <sup>3</sup> |
| Particle Matter less than 10 µm <sup>(C)</sup> | -          | 20  | µg/m <sup>3</sup> |
| 1-Methyl-2-pyrrolidinone <sup>(D)</sup>        | 872-50-4   | 160                                       | µg/m <sup>3</sup> |
| Individual VOCs <sup>(E)</sup>                 | -          | 1/2 CREL<br>or<br>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. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m<sup>3</sup>) fall in the range of 0.5 mg/m<sup>3</sup> 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) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/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 v1.1 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**



# CERTIFICATE OF COMPLIANCE



## Roland DG

### TrueVIS INK

Restrictions: Certified for Signage Applications

75931-420

Certificate Number

03/04/2016 - 04/12/2018

Certificate Period

Certified

Status

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

Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using a Classroom Environment with an air change of  $0.82 \text{ hr}^{-1}$  and a loading of  $11.90 \text{ m}^2$ ; and Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using an Office Environment with an air change of  $0.68 \text{ hr}^{-1}$  and a loading of  $3.00 \text{ m}^2$ .

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



**Environment**

## GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria                                       | CAS Number | Maximum Allowable Predicted Concentration | Units             |
|--|------------|---|-------------------|
| TVOC <sup>(A)</sup>                            | -          | 0.22                                      | mg/m <sup>3</sup> |
| Formaldehyde                                   | 50-00-0    | 9 (7.3 ppb)                               | µg/m <sup>3</sup> |
| Total Aldehydes <sup>(B)</sup>                 | -          | 0.043                                     | ppm               |
| 4-Phenylcyclohexene                            | 4994-16-5  | 6.5                                       | µg/m <sup>3</sup> |
| Particle Matter less than 10 µm <sup>(C)</sup> | -          | 20  | µg/m <sup>3</sup> |
| 1-Methyl-2-pyrrolidinone <sup>(D)</sup>        | 872-50-4   | 160                                       | µg/m <sup>3</sup> |
| Individual VOCs <sup>(E)</sup>                 | -          | 1/2 CREL<br>or<br>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. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m<sup>3</sup>) fall in the range of 0.5 mg/m<sup>3</sup> or less, as specified in CDPH Standard Method v1.1.
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- (D) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/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 v1.1 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**

# CERTIFICATE OF COMPLIANCE



**Roland DG**  
TrueVIS TR2 INK

136140-420

Certificate Number

03/26/2019 - 04/12/2020

Certificate Period

Certified

Status

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



UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified dates unless there is non-compliance with the Agreement.

# CERTIFICATE OF COMPLIANCE



## Roland DG

### WallFlair Removal Fabric

Restrictions: Certified for Signage Applications

29569-420

Certificate Number

04/12/2013 - 04/12/2018

Certificate Period

Certified

Status

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

Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using a Classroom Environment with an air change of  $0.82 \text{ hr}^{-1}$  and a loading of  $11.90 \text{ m}^2$ ; and Decorative Display determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using an Office Environment with an air change of  $0.68 \text{ hr}^{-1}$  and a loading of  $3.00 \text{ m}^2$ .

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



**Environment**

## GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria                                       | CAS Number | Maximum Allowable Predicted Concentration | Units             |
|--|------------|---|-------------------|
| TVOC <sup>(A)</sup>                            | -          | 0.22                                      | mg/m <sup>3</sup> |
| Formaldehyde                                   | 50-00-0    | 9 (7.3 ppb)                               | µg/m <sup>3</sup> |
| Total Aldehydes <sup>(B)</sup>                 | -          | 0.043                                     | ppm               |
| 4-Phenylcyclohexene                            | 4994-16-5  | 6.5                                       | µg/m <sup>3</sup> |
| Particle Matter less than 10 µm <sup>(C)</sup> | -          | 20  | µg/m <sup>3</sup> |
| 1-Methyl-2-pyrrolidinone <sup>(D)</sup>        | 872-50-4   | 160                                       | µg/m <sup>3</sup> |
| Individual VOCs <sup>(E)</sup>                 | -          | 1/2 CREL<br>or<br>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. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m<sup>3</sup>) fall in the range of 0.5 mg/m<sup>3</sup> 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) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m<sup>3</sup>/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 v1.1 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**