

COMPLIANCE TESTED by berkeley analytical

VOC Emission Test Certificate

Product Name: DP 2501/2502

Product Sample Information		Certificate Information		
Manufacturer:	Design Polymerics	Certificate No:	150908-02	
Manf. Website:	www.designpoly.com	Certified By:	far: F	
Ptoduct Category:	Adhesive		Raja S. Tannous, Laboratory Director	
Date Produced:	8/11/2015	Date:	September 8, 2015	

Reference Standard: California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010 (Emission testing method for CA Specification 01350)

Acceptance Criteria and Results Demonstrating Compliance of Product Sample to Referenced Standard:

Individual VOCs of Concern ²		Formaldehyde ³		TVOC ⁴
Criterion	Compliant?	Criterion	Compliant?	Range
≤½ Chronic REL	YES	≤9.0 μg/m ³	YES	$\leq 0.5 \text{ mg/m}^3$
≤½ Chronic REL	YES	≤9.0 μg/m³	YES	$\leq 0.5 \text{ mg/m}^3$
	Criterion ≤½ Chronic REL	Criterion Compliant? ≤½ Chronic REL YES	Criterion Compliant? Criterion ≤½ Chronic REL YES ≤9.0 μg/m³	Criterion Compliant? Criterion Compliant? ≤½ Chronic REL YES ≤9.0 μg/m³ YES

Product Coverage⁵: 114 g/m²

1. Exposure scenarios & product quantities for classroom & office are defined in Tables 4-2 – 4-5 (CDPH Std. Mtd. V1.1-2010)

2. Maximum allowable concentrations of individual target VOCs are specified in Table 4-1 (*ibid*.)

3. Maximum allowable formaldehyde concentration is $\leq 9 \ \mu g/m^3$, effective Jan 1, 2012; previous limit was $\leq 16.5 \ \mu g/m^3$ (ibid.)

4. Informative only; predicted TVOC Range in three categories, i.e., ≤0.5 mg/m³, >0.5 – 4.9 mg/m³, and ≥5.0 mg/m³

5. Informative and applicable only to tests of wet-applied products; grams of sample applied per square meter of substrate

Standards & Codes Recognizing CDPH Standard Method V1.1 (partial list)

- USGBC LEED CI, NC, Schools, Healthcare, 2009
- USGBC LEED Version 4, BD&C, ID&C, 2013
- Collaborative for High Performance Schools (CHPS), National Core Criteria, 2013
- Green Guide for Healthcare, V2.2, 2007
- ANSI/GBI 01-2010, Green Building Assessment Protocol

Narrative: Design Polymerics selected a sample representative of its DP 2501/2502 product and submitted it on 8/14/2015 for testing. Berkeley Analytical measured and evaluated the emissions of VOCs from this sample following CDPH/EHLB/Standard Method V1.1-2010. The results of the test are presented in Berkeley Analytical report, 777-001-02A-Sep0815.

Berkeley Analytical is an independent, third-party laboratory specializing in the analysis of organic chemicals emitted by and contained in building products, finishes, furniture, and consumer products. We are an ISO/IEC 17025 accredited laboratory (IAS, <u>TL-383</u>); all standards used in performing this test are in Berkeley Analytical's scope of accreditation.

DISCLAIMER: THIS CERTIFICATE OF COMPLIANCE AFFIRMS THAT: 1) A SAMPLE OF THE LISTED PRODUCT WAS TESTED ACCORDING TO THE REFERENCED STANDARD; 2) THE MEASURED VOC EMISSIONS FROM THE SAMPLE WERE EVALUATED FOR THE DEFINED EXPOSURE SCENARIO(S); AND 3) THE RESULTS MEET THE ACCEPTANCE CRITERIA OF THE REFERENCED STANDARD(S). BERKELEY ANALYTICAL IS NOT RESPONSIBLE FOR ANY CLAIMS REGARDING A PRODUCT OR PRODUCTS ENTERED INTO COMMERCE THAT MAY BE BASED ON THIS TEST. BERKELEY ANALYTICAL PROVIDES THIS CERTIFICATE OF COMPLIANCE "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

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TO: Al Hodgson Berkeley Analytical 815 Harbor Way South, Suite 6 Richmond, CA 94804-3612

RE: Emission Testing, CDPH Standard Method V1.1, LEED EQ v4

AI,

Below is the rational and calculations for Design Polymerics DP 2501/2502 used in a standard office and standard classroom.

DP 2501/2502 all 400 square feet per gallon application rate.

CLASSROOM

Supply Duct - Rectangular duct, insulated. Snap lock round pipe construction uninsulated. Flexible duct.

Total Classroom	36 square feet at 400 square feet/gallon application rate
Less 8 taps at 8" diameter	<2 3/4 sq ft>
1 end cap 12"x12"	1 sq ft
12" x 12" at 15' length	15 sq ft
16" x 16" at 20' length 1 reducer modeled as 1' 16"x16" 21' x 16" x16"	22 3/4 sq ft

OFFICE

Supply Duct - Rectangular duct, insulated. Snap lock round pipe construction uninsulated. Flexible duct.

Total Office	8.75 square feet at 400 square feet/gallon application rate
Less 1 tap at 8" diameter	<1/4 sq ft>
1 end cap 12"x12"	1 sq ft
12" x 12" at 10' length	8 sq ft

Sincerely,

Goranne Swift

Roxanne Swift

Technical Director

DP 2501 WATER BASED DUCT LINER ADHESIVE

A water based, premium quality, UL Classified duct liner adhesive specifically formulated for spray, brush, and roller applications.

Recommended Uses:

Bonding fibrous duct wrap and duct liner insulation to galvanized duct work. Sealing cut edges of fiberglass insulation.

Bonding kraft backed foil coverings to fiberglass and urethane flat stock or pipe insulation. Bonding multiple layers of fibrous insulation board.

Features and Benefits:

- LEED Qualified
- UL Classified
- Excellent Wet Tack
- Non-Flammable
- Moisture Resistant
- Exceptional Coverage
- Low Odor
- Non-Oxidizing
- Meets FDA, USDA, and EPA Standards
- Meets Requirements of UL 723, ASTM E-84 NFPA 90A & 90B, and ASTM C-916 Type II

Directions For Use:

Surface Preparation: Surfaces should be clean, dry and free of dirt, oil and any foreign matter.

Application: DP 2501 may be applied by brush, roller, roller coater, or spray equipment. DP 2501 may be applied to either the galvanized steel or the fibrous insulation.

For internal fiberglass duct insulation: Apply DP 2501 evenly and secure with mechanical fasteners in accordance with SMACNA standards.

DP 2501 should be applied at temperatures above 40°F and should never be exposed to temperatures that exceed 200°F or fall below -25°F. **Do not thin.**

Technical Data:

Color: Black or White Base: Water Chemical Family: Synthetic Latex Solids Content: 40 ± 2% Viscosity: Approx. 2,000 - 3,000 cps Application Temperature: 40°F - 110°F Storage Temperature: 40°F - 110°F. Service Temperature: -25°F - 200°F Freeze/Thaw Stability: Do not allow to freeze Flammability: Non-flammable wet or dry Flash Point: No flash to boiling Shelf Life: 1 Year (unopened containers) Open Time: 10 to 20 minutes depending on humidity, temperature, and application rate Coverage: Typical spray application may yield up to 400 sq. ft. per gallon Clean Up: Use warm water and soap Packaging: 5 gallon pail, 50 gallon drum, 275 gallon tote

VOC: 22 g/l



DESIGN POLYMERICS

3301 W. Segerstrom Ave. Santa Ana, CA 92704 Toll Free 800.641.0808 Phone 714.432.0600 Fax 714.432.0660 www.designpoly.com

Revised 4-17-13

DP 2502 WATER BASED DUCT LINER ADHESIVE

A water based, premium quality, UL Classified duct liner adhesive specifically formulated for spray, brush, and roller applications.

Recommended Uses:

Bonding fibrous duct wrap and duct liner insulation to galvanized duct work. Sealing cut edges of fiberglass insulation.

Bonding kraft backed foil coverings to fiberglass and urethane flat stock or pipe insulation. Bonding multiple layers of fibrous insulation board.

Features and Benefits:

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Directions For Use:

Surface Preparation: Surfaces should be clean, dry and free of dirt, oil and any foreign matter.

Application: DP 2502 may be applied by brush, roller, roller coater, or spray equipment. DP 2502 may be applied to either the galvanized steel or the fibrous insulation.

For internal fiberglass duct insulation: Apply DP 2502 evenly and secure with mechanical fasteners in accordance with SMACNA standards.

DP 2502 should be applied at temperatures above 40° F and should never be exposed to temperatures that exceed 200°F or fall below -25°F. **Do not thin.**

Technical Data:

Color: Black or White Base: Water Chemical Family: Synthetic Latex Solids Content: $40 \pm 2\%$ Viscosity: Approx. 2,500 - 3,500 cps Application Temperature: 40°F - 110°F Storage Temperature: 40°F - 110°F. Do not allow to freeze Service Temperature: -25°F - 200°F Freeze/Thaw Stability: Do not allow to freeze Flammability: Non-flammable wet or dry Flash Point: No flash to boiling Shelf Life: 1 Year (unopened containers) Open Time: 10 to 20 minutes depending on humidity, temperature, and application rate Coverage: Typical spray application may yield up to 400 sq. ft. per gallon Clean Up: Use warm water and soap Packaging: 1 gallon pail, 5 gallon pail, 50 gallon drum, 275 gallon tote VOC: 22 g/l





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