

## “VOC levels in Truestik Adhesives”

VOC levels are prescribed in flooring adhesives mainly carpet adhesives to lower the emitted levels of organic solvents during new and existing work.

VOC refers to Volatile Organic Compounds (usually evaporable solvents).

By specifying lowered VOC levels, architects are able to claim points for Green building. These may be for LEED, NZ Green building Council or others.

All refer to rule 1168 for the levels.

Rule 1168 refers to

“ Test Method: SCAQMD method 304-91 Determination of Volatile Organic Compounds (VOC) in Various Materials as referenced by South Coast Air Quality Management Division (SCAQMD) Rule 1168.”

**Within LEED, low VOC adhesives contribute 1 point to Green building.**

Indoor Environmental Quality		Possible Points: 15
Prereq 1	Minimum Indoor Air Quality Performance	
Prereq 2	Environmental Tobacco Smoke (ETS) Control	
Credit 1	Outdoor Air Delivery Monitoring	1
Credit 2	Increased Ventilation	1
Credit 3.1	Construction IAQ Management Plan—During Construction	1
Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
Credit 4.3	Low-Emitting Materials—Flooring Systems	1
Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Product	1
Credit 5	Indoor Chemical and Pollutant Source Control	1
Credit 6.1	Controllability of Systems—Lighting	1
Credit 6.2	Controllability of Systems—Thermal Comfort	1
Credit 7.1	Thermal Comfort—Design	1
Credit 7.2	Thermal Comfort—Verification	1
Credit 8.1	Daylight and Views—Daylight	1
Credit 8.2	Daylight and Views—Views	1

### VOC limits in LEED

**Intent**  
Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

**Requirements**  
All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements of the following reference standards:  
 Adhesives, Sealants and Sealant Primers: South Coast Air Quality Management District (SCAQMD) Rule #1168. VOC limits are listed in the table below and correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005.

Architectural Applications	VOC Limit [g/L less water]	Specialty Applications	VOC Limit [g/L less water]
Indoor Carpet Adhesives	50	PVC Welding	510
Carpet Pad Adhesives	50	CPVC Welding	490
Wood Flooring Adhesives	100	ABS Welding	325
Rubber Floor Adhesives	60	Plastic Cement Welding	250
Subfloor Adhesives	50	Adhesive Primer for Plastic	550
Ceramic Tile Adhesives	65	Contact Adhesive	80
VCT & Asphalt Adhesives	50	Special Purpose Contact Adhesive	250
Drywall & Panel Adhesives	50	Structural Wood Member Adhesive	140
Cove Base Adhesives	50	Sheet Applied Rubber Lining Operations	850
Multipurpose Construction Adhesives	70	Top & Trim Adhesive	250
Structural Glazing Adhesives	100		

A Supplier must prove that their adhesives are lower than the VOC limits.

See over



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## Fax

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<b>From:</b> Jeff Lee	O/No: 115652
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<b>Phone:</b>	<b>Date:</b> September 8, 2009
<b>Re:</b> Adhesive samples for analysis	<b>Ref:</b> 71743

We received six water-based flooring adhesive samples for the determination of VOC levels.

You have asked us to determine the total "Volatile Organic Compounds" level in each sample, as specified in Test Method: SCAQMD method 304-91 Determination of Volatile Organic Compounds (VOC) in Various Materials as referenced by South Coast Air Quality Management Division (SCAQMD) Rule 1168.

The samples were analysed by headspace extraction using an SPME fibre, which was desorbed into our GC-MS. The VOCs were quantified by the standard additions method. In some cases we do not retain standard materials for the VOC detected, and in this instance we have used a closely related compound as a standard.

Our results are as follows:

<u>Sample</u>	<u>Total VOC's</u>
RMA86	1.8 g/L
Supracryl	1.0 g/L
Truestik CTA	1.5 g/L
Truestik VA1	0.87 g/L
Truestik CA1	0.11 g/L
Truestik CA2	0.19 g/L

Regards