



Confirmation

eurofins

Eurofins Product Testing A/S confirms that a sample of a Polyurethane Adhesive with the name

OTTOCOLL[®] P 86
supplied by
Herman Otto GmbH

showed low VOC contents in a test specified in LEED 2009 credit EQ c4.1 (adhesives and sealants).

VOC contents were below the limit value specified as 70 grams VOC minus water per liters for "Multipurpose Construction Adhesives".

The test has been performed in January 2012 (G13008).

Volatiles content was calculated by Eurofins.
Water content was set to zero.
Content of exempt compounds was set to zero.
Solids content was determined by Eurofins.

With this confirmation, use of product OTTOCOLL[®] P 86 may qualify for fulfilment of LEED 2009 credit EQ c4.1 (adhesives and sealants).

10 January 2011

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Date
 10 January 2012

Your ref.

Our ref.
 G13008/IB

Test Report – LEED 2009 EQ c4.1, SCAQMD rule 1168 (2005)

Sample material

Sample identification	OTTOCOLL® P 86
Product type	Polyurethane Adhesive
Product data, according to manufacturer	Density: 1.45 g/ml at 20 °C ** Water content: 0 g/l** Exempt compounds***
Date received	22 December 2011
Analytical period	January 2012

Methods applied

Method	Principle	Parameter	Detection limit	Uncertainty
LEED 2009 EQ c4.1 ASTM D 2369 - 10	Gravimetric	Total Volatiles, SCAQMD rule 304	1 g/l	10 %

Volatile content of the sample was determined gravimetrically by heating up to 110 °C during 60 minutes. The result is the average of double testing. The result was calculated as:

$$([g \text{ all volatiles}] - [g \text{ water}] - [g \text{ exempt compounds}]) / ([l \text{ material}] - [l \text{ water}] - [l \text{ exempt compounds}])$$

U_m (%): The expanded uncertainty U_m is equal to 2 x RSD%, see also www.eurofins.dk, keyword: Måleusikkerhed

Analytical results

	Solid content, % mass	Water content, % mass	Exempt compounds, % mass	VOC less water less exempt compounds, g/l	VOC limit g/l
OTTOCOLL® P 86	97	0**	0***	44	70*

* VOC limit for "Multipurpose Construction Adhesives"

** Given by the client

*** Not information about exempt compounds. Set to zero.

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