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27<sup>th</sup> June 2013

**Ref: HEA9 VOCs for BREEAM 2008 and Hea 02 Indoor Air Quality for BREEAM 2011 & Generic Green Guide Ratings.**

To whom it may concern,

The following products are compliant to the requirements of HEA9 Volatile Organic Compounds, BREEAM 2008 and Hea02 Indoor Air Quality, BREEAM 2011.

**Altro safety flooring**

All Altro safety flooring products comply with the requirements of ISO 14041:2004 and are declared E1 with regards to formaldehyde. The testing requirement for these criteria is EN 717-1:2004 and relates to the *Determination of Formaldehyde Release in Wood Based Panels* and is hence not valid.

Under ISO 14041:2004 "this testing requirement does not apply to floor coverings to which no formaldehyde containing materials were added during production or post production processing. These do not need to be classified but may without any testing be declared as E1"

Regulated preservatives as defined by the standard are also absent.

**Altro Whiterock Ceilings**

Altro Whiterock Ceiling systems are also declared as E1 for formaldehyde according to EN 13964:2004, asbestos is also absent.

**Altro Whiterock Wall Cladding**

All Altro Whiterock wall cladding products comply with the requirements of HEA9, BREEAM 2008 and Hea 02 under BREEAM 2011.

For compliance to these BREEAM credits, wall coverings should satisfy the limits for VCM, formaldehyde, heavy metals and other toxic substances listed in Table 1 of the relevant product standard.

All tests are carried out using Testing Requirement 5 as listed in Hea 02 (EN 12149:1998)

*Compliance is as follows:*

1. Formaldehyde – formaldehyde is not used in the manufacture of raw PVC, compounding of dry blend or production sheets. Formaldehyde <120ppm.
2. VCM – for general regulation of production of raw PVC the VCM content of the PVC has to be below 5ppm. The manufacturing process further reduces the unbound VCM in the final product.



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3. Heavy metals – none of the heavy metals or toxic substances listed in Table 1 are used within our products.

Altro Safety Flooring and Wall Cladding Adhesives.

#### **Altrofix A19 Plus and Altrofix A15 flooring adhesives**

We can confirm that the above adhesives have been tested for carcinogenic substances and VOCs according to EN 13999-1:2007 according to the testing requirements 2-4 as listed in HEA9, BREEAM 2008 and HEA 02, BREEAM 2011, (EN 13999-2:2007 VOCs, EN 13999-4:2007)

EN 13999-1 describes a conventional standard test method for assessing potential emissions from adhesives after their application but doesn't give any acceptance limits for the obtained values.

The reference limit values taken are established by the GEV-EMICODE system, a very well accepted system in Europe for adhesives using EN 13999-1 as the test method.

According to GEV-EMICODE the analytical acceptance limits for the carcinogenic substances potentially present in adhesive formulations are:

K1 Benzene, vinyl chloride	<2µg/m <sup>3</sup>
K2 Acrylamide	<10µg/m <sup>3</sup>
K3 Vinyl acetate, dioxane, acetaldehyde, formaldehyde	<50µg/m <sup>3</sup>

Both Altrofix A19 Plus and Altrofix 15 are very well below these limits (in fact, below analytical detection limits) and can be claimed as free from carcinogenic substances.

We can also confirm that formaldehyde, the most common sensitising volatile substance in adhesives is not detectable in both products and also isocyanates are not present.

#### **Altrofix W139 Wall Cladding Adhesive**

We can confirm that Altrofix W139 wall cladding adhesive complies with the requirements of HEA9 and Hea 02 according to EN 13999-1:2007. The requirements of HEA9 and Hea02 state that for adhesives that are used in conjunction with rigid wall coverings such as Altro Whiterock, the requirements for flooring adhesives should be used.

#### *Performance Summary*

W139 has been tested for VOCs, isocyanates and formaldehyde emissions according to EN 13999-1:2007 using the testing requirements 2-4 (EN 13999-2:2007, EN 13999-3:2007 and EN 13999-4:2007)

W139 falls below the current reference limits set by GEV-EMICODE after testing for emissions for 24 hours.



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W139 does not emit isocyanates, formaldehyde or any carcinogenic or sensitising substances above detectable limits.

## Generic Green Guide Ratings for Safety Flooring

Altro safety flooring achieves the following generic Green Guide to Specification ratings:

*Polyvinyl chloride floor coverings with enhanced slip resistance (safety flooring) EN 13845*

Building Application	Element Number	Generic Green Guide Rating
Health	821570055	A+
Education	921570010	A+
Commercial	821570043	A
Retail	821570055	A+/A

If you require any further information about compliance of our products to BREEAM 2008 and BREEAM 2011, please contact me here at Letchworth.

Kind regards

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