

VOC emissions limitations in France - AFSSET Guideline

The French government issued regulations on emissions of Volatile Organic Compounds (VOC) and formaldehyde for construction products. This is about limiting problem substances (CMR), about a planned compulsory VOC emissions label, and a voluntary approach for hygiene properties within the French FDES sheets.

All this occurs within the frame of European Construction Products Directive (CPD), requiring that no construction products shall impair human health. In the lack of precise definition of what that means, national laws can interpret it. In Germany, DIBt agency operates an approval scheme for floor coverings and some other construction products, following AgBB approach (a group of German health authorities) that is very similar to French AFSSET guideline.

From 1. Jan 2010, only construction products may be sold in France if they show 28 days emission of trichloroethylene, benzene, DEHP and DBP below $1 \mu\text{g}/\text{m}^3$ each, tested with ISO 16000 and calculated for European reference room. Eurofins offers testing

- either just for the new French regulation,
- or alternatively with a better method that allows manufacturers to be really sure that the limits are not exceeded.

Background for that differentiation is the fact that the specified test method cannot detect such low levels of DEHP and DBP.

Another French regulation is in preparation on a mandatory emission classes labelling of all construction products and decorative products, based on emission testing.



French AFSSET agency published the "Protocole AFFSET" guideline for limiting VOC emissions into indoor air. It specifies chamber emission testing and limit values after 3 and after 28 days of storage in a ventilated test chamber - the 28 days test is regarded as representative for long-term emissions. The test method is ISO 16000 (parts 3, 6, 9, 10 and 11), and the results are calculated to the European reference room of 3 m x 4 m x 2.5 m with $\frac{1}{2}$ air change per hour.

For more details, please see overleaf.

The approaches of AgBB (Germany) and AFSSET (France) describe the minimum required limit values for VOCs. Other labels may certify «better» products with very low emissions, applying lower limit values. Examples of those voluntary labels are EMICODE, GUT, Blue Angel, M1 and Indoor Air Comfort.

The AFSSET 2009 guideline is not legally binding. It is meant to be considered by industry if evaluating the impact of their products on indoor air quality. Such information is needed for filling in FDES sheets (Fiches de Déclaration Environnementale et Sanitaire), a special French way of documenting environmental and hygienic properties of a product. FDES are very popular and are considered kind of a must by French construction industry. But AFSSET is not the only path of showing compliance; also other approaches may be used.

If a manufacturer wants to show compliance with AFSSET 2009 guideline,

a test report using ISO 16000 has to show compliance with AFSSET 2009 CLI limit values ("Concentrations Limites d'intérêt"). Eurofins offers such testing.

AFSSET 2009 guideline specifies limit values for emissions:

- Carcinogens after 3 and 28 days,
- Total VOC (TVOC) after 3 and 28 days,
- VOC with a defined CLI limit value after 28 days
- VOC without LCI, or non-identifiable, after 28 days.

The AFSSET requirements are stricter than those of German AgBB, especially for formaldehyde. It is a real challenge for many products especially with natural material basis to comply with AFSSET guideline.

In contrast to first version, AFSSET 2009 guideline no longer is applicable only to plane solid products, but also to other products - with sample handling as specified in ISO 16000-11.

As AFSSET guideline testing is identical to testing needed for French regulation (AFSSET just is more extensive), both tests can easily be performed in parallel, in same test chamber. And as French testing is very similar to many other European VOC emissions rating schemes, such as AgBB, Blue Angel and more, these tests can be easily combined into one test - this will result in significant costs savings, instead of ordering all tests separately. Additionally, Eurofins can deliver testing for USA purposes, e.g. for showing LEED compliance.

Eurofins is the world market leader for VOC emission chamber testing with more than 20 years experience in delivering reliable test results, but also in adapting any testing programme to the specific needs of each client, for optimizing the ratio of output and costs. Eurofins emission chamber testing is ISO 17025 accredited and approved by many labels throughout the world.



www.product-testing.eurofins.com/afsset.aspx

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