



EN 45 545-2: CREPIM'S ACCREDITATION



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Accredited laboratory for EN 45545

CREPIM is one of the leader European Laboratories for the development and the approval of materials covered by fire regulations.

Located in the heart of Europe, CREPIM tests and develops fire resistant formulas for companies working in the mass transportation sector such as railway, electrical and textile applications, building application ...

Recognized by CERTIFER (SNCF/RATP) and accredited by the COFRAC, the CREPIM edits test report in accordance with the NF F 16-101, NF F 16-102 and EN 45545-2 standards and give you a direct access to the French and European railway market.

CREPIM EN 45545 equipment certified by COFRAC

ISO 5658-2, Lateral Flame Spread – Propagation test

Specimens are held in a vertical orientation and exposed to a gas fired radiant panel and a non-impinging pilot flame. The following parameter is then determined: Critical Heat Flux at Extinguishment - **CFE** - a measure of how far the flames have travelled across the surface of the specimen.

ISO 5660-1, The cone calorimeter test

A small sample of material is exposed to the irradiance generated by a truncated cone heater. The value which is required is the **MARHE** which is directly linked to the heat rate release.

ISO 5659-2, Determination of Smoke Opacity

It exposes a material to specified thermal conditions of pyrolysis and combustion in a continuous procedure. The resulting smoke density / time curve is used to calculate the specific optical density figures, which can be used to determine **VOF4**, **Ds4min** or **Dsmax** as required for the specific product function.



Annex C: Gas analysis in the ISO 5659-2 Smoke Chamber, using FTIR analysis Technique

The analysis of each relevant gas is made by an IRTF apparatus. The concentration of each toxic gas is recorded and compared to relevant reference values in order to determine the **CIT** value.

Other tests concerned by the EN 45545-2

- NF EN ISO 11925-2, Small flame test
- NF EN ISO 9239-1, Radiant Panel Floor – Flame propagation
- ISO 4589-2, Determination of the Limit Oxygen Index
- NF X 70-100, Toxic gas emission

CREPIM is present at each step

To reach the EN 45545 results there are 4 main steps, and for each one the CREPIM can help you or give you advice:



The first step is the determination of the final use of the product. This step is really important because the final utilization will influence the requirement choice. After the requirement determination by the CREPIM, we will tell you which tests you have to lead and send you a quotation with all the important information (size and number of sample, time needed to lead the tests...) within 48 hours. All the tests can be led in CREPIM and you get a full report, available in several language.

CLASSIFICATION:

According to the results and the requirement, the product is HL3 (the best result), HL2, HL1 or downgraded.



CREPIM offers a personalized analysis of your need to deliver the right product to the right market.