

ELENA CHINNAPPA PROFILE



Elena CHINNAPPA

Fire Testing Officer – Physico-Chemical Centre
Test and Measurement Laboratory – RATP

eurailtest

Elena CHINNAPPA joined the Test and Measurement Laboratory (LEM) in 2008 as a Fire Testing Officer at the Physico-Chemical Centre. She is one of seven members of the FER (Fire, Expert Analysis and Coverings) team. She performs fire tests on materials and equipment used in the rail sector. Around ten different tests in total can be conducted: oxygen index, tube furnace tests and cone calorimeter tests, etc.

Elena is the Technical Manager for all of the tests she performs, a service that is Cofrac accredited. The results of these tests help to determine the fire behaviour of the products tested. These products may or may not be installed on rolling stock, depending on the nature of the conclusions in the test report.

Elena also oversees management of the measuring equipment (thermocouple, flowmeter, fluxmeter, etc.) used for the fire tests. This equipment is monitored by the OptiMu metrology management software and is periodically calibrated by an accredited laboratory.

What exactly does a fire test involve?

The testing service starts with the reception of samples, including a dimensional check and the creation of a control test sample. This is weighed on the day of reception.

Before starting the tests, the samples are conditioned for 48 hours at $23\pm2^\circ\text{C}$ and $50\pm5\%$ relative humidity. The control test sample is then weighed again, enabling Elena to check that the samples remain stable over time. Different parameters are then set on the measuring equipment. For example, a gas analyser may be calibrated or furnace settings adjusted. These settings are essential because they ensure the reliability of the measuring equipment and guarantee the precision of the results delivered to the customer.

Once this stage is completed, testing can then begin. The test must be validated either with the aid of control charts or with dispersion criteria – for rapid itemisation. Lastly, the data is processed and used to write up the test report.

What other tasks does Elena perform?

- **Maintenance management for measuring equipment:** There are two types of maintenance: preventive and corrective. Preventive maintenance is carried out periodically and entails checking that there is no equipment degradation by conducting leakage tests or changing the parts of a device that are more sensitive (seals, filters, etc.). The aim here is to make sure that there has been no deviation in the device over time.
Corrective maintenance, meanwhile, is performed when a device malfunctions.
- **Customer Relations:** Elena is responsible for writing business and technical proposals and test reports, and responds to customer enquiries related to Eurailtest.
- **Logistics Management:** Elena is in charge of ordering consumables, particularly the chemical products used in testing. She also manages stock and its validity.
- **Standards monitoring:** Elena is responsible for keeping track of the standards used for her tests. If a standard changes, she must assess the impact on the tests and, if necessary, revise the documents relevant to the specific test as well as the technical modifications.

YOUR CAREER IN FOUR STAGES



2007

Science and engineering diploma from the IUT university in Évry.

2008

Professional degree in plastics engineering and composite materials from the IUT university in Évry, on a work/study basis with PSA.

2009

First job at SNECMA before joining the LEM.

2018

Fire & smoke study, in compliance with Standard EN 45545-2, analysing a product in its entirety so that the product can be validated and meet the EU reference source.

Three words that describe your job?

What makes you most proud in your job?

What is your best memory of an assignment for Eurailtest?

Relation-building

Safety

Quality service

"The relational aspect, guiding, advising and satisfying the customer, which allows me to put my knowledge to the forefront. I find it very gratifying putting my skills to use to serve customers."

"Providing a service to test cables for the maritime sector:

Fire propagation tests were conducted on a test sample comprising several types of cables (only one cable is normally tested at a time) to reflect the most realistic scenario. A specific request was made by the customer and we were able to respond. This was an interesting project with an international dimension, for the Indian maritime sector."

A QUOTE OR WORD TO ROUND OFF THIS INTERVIEW?



"The only way to do great work is to love what you do".
Steve Jobs