



NZEB\_LAB

## LMR: Characterization of Materials and Coatings

### DESCRIPTION OF THE INFRASTRUCTURE

Name of the infrastructure: LMR - Laboratory of Materials and Coatings

Location (town, country): LNEG, Polo do Lumiar, Lisbon, Portugal

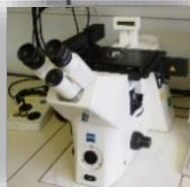
Web-site:

Legal name of the organization operating the infrastructure: LNEG

Location: Building E

### SERVICE PROVIDED

**Service Name:** Characterization of Materials and Coatings



#### Associated equipment:

- Philips Scanning Electron Microscope, Model XL30 FEG with Energy Dispersive X-ray Spectroscopy (EDS) associated
- Geigerflex D/MAC IIIC diffractometer of RIGAKU with vertical goniometer, Bragg-Brentano geometry and graphite monochromator
- Specific equipments for characterization of metallic and polymeric materials, surface treatments and for metallic/organic coatings

#### Methods:

- Surface microstructure observation and analysis by Scanning Electron Microscopy (SEM); Qualitative elemental analysis and surface elemental distribution by Energy dispersive X-ray spectrometry (EDS) microanalysis
- Identification of crystalline constituents or phases in inorganic materials by X-Ray Diffraction (XRD)
- Standardized methods (ISO, EN and ASTM) for characterization of metallic and polymeric (elastomers and other polymers) materials, surface treatments and for metallic/organic coatings (<http://www.lneg.pt/iedt/unidades/21/produtoseservicos>)

#### Deliverables:

Chemical, physical and morphological characterization of materials and coatings

#### Testing period (weeks/year):

1-2 weeks but depends on the service and number of samples requested

#### Costs:

100-185€ (average estimated cost per sample/method)

**Contact:** Teresa Cunha Diamantino, [teresa.diamantino@lneg.pt](mailto:teresa.diamantino@lneg.pt) ou [lmr@lneg.pt](mailto:lmr@lneg.pt)