CHAIR FOR THERMALPROCESSTECHNOLOGY

Head of the Chair:
Univ.-Prof. Dipl.-Ing. Dr. techn. Harald Raupenstrauch
Franz-Josef-Straße 18
A-8700 Leoben
Tel. +43(0)3842 402-5801
Fax +43(0)3842 402-5802
Email: tpt@unileoben.ac.at
http://institute.unileoben.ac.at/thermoprozesstechnik

# Master's thesis

## Development of a measurement method for the thermal conductivity of thermally sprayed coatings

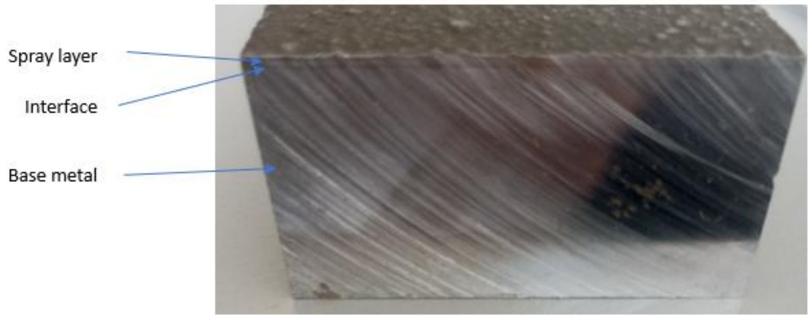
### Description:

Thermally sprayed coatings are produced by spraying molten metals onto a surface. These coatings serve various technical purposes, in this particular case as wear protection. Such thermal spray coatings contain fine, often invisible pores that influence their thermal conductivity. As a result, the thermal conductivity is highly dependent on the spraying process.

### Objective:

The objective of this Master's thesis is to develop a measurement method for determining the thermal conductivity of thermally sprayed coatings. The work includes the following tasks:

- Design and conceptualization of the measurement setup
- Estimation of measurement uncertainty
- Evaluation of the measurement setup using reference materials
- Measurement of four sample coatings




**Location:** Leoben

**Start:** as soon as possible

**Duration:** Approximately 6 months

**Compensation :** -

**Contact person:** Priv.-Doz. Dipl.-Ing. Dr.mont. Spijker
[e-mail: christoph.spijker@unileoben.ac.at; Tel.: + 43 3842 / 402 5818]