

Offering the services of the Department of Technology, Materials and Computer Supported Production in the framework of cooperation

01

- *Areas of cooperation:*
 - **Additive manufacturing, TGA/DSC analysis, principles of plastic moulding design, preparation and certification in Solidworks:** doc. Ing. Ivan Gajdoš, PhD., Ing. Ján Varga, PhD., ivan.gajdos@tuke.sk, jan.varga@tuke.sk
- *Portfolio:*
 - additive manufacturing of plastic products
 - determination of DSC curves of temperature flux and weight change of the samples under investigation
 - measurement and evaluation of TGA curves - diagnosis and composition of copolymers, blends, analysis of additives in fibres and polymers and thermal stability of polymers and their identification
 - certificates CSWP, CSWA, CSWPA-DT, CSWP-MBD, CSWP-S, CSWPA-MM, CSWPA-SM, CSWPA-SU, CSWPA-WD, CSWPA-AM, CSWA-E, CSWA-S, CSWA-SD, CSWP-CAM

02

- *Areas of cooperation:*
 - **3D optical deformation measurements:** prof. Ing. Ján Slota, PhD., jan.slota@tuke.sk
- *Portfolio:*
 - modelling and simulation of forming processes and optimization of technological forming processes

03

- *Areas of cooperation:*
 - **Verification of the functionality of manufactured forming tools:** prof. Ing. Emil Spišák, CSc., prof. Ing. Ján Slota, PhD., emil.spisak@tuke.sk, jan.slota@tuke.sk
- *Portfolio:*
 - tests of complex formability of sheets

04

- *Areas of cooperation:*
 - **Production programming on CNC machine tools and certified CNC programming courses:** Ing. Ján Varga, PhD., jan.varga@tuke.sk
- *Portfolio:*
 - workshop programming on Heidenhain iTNC 530, TNC 640
 - programming of NC machines with CAD/CAM systems

05

- *Areas of cooperation:*
 - **Welding school and certified welding courses:** prof. Ing. Ján Viňáš, PhD., jan.vinas@tuke.sk
- *Portfolio:*
 - *training of welding personnel*
 - *training and testing of welders on safety provisions*
 - *preparatory courses completed by examination according to STN EN 287-1*
 - *periodic examination of welders according to STN 287-1*

06

- *Areas of cooperation:*
 - **Evaluation of surface properties and coatings:** doc. Ing. Dagmar Draganovská, PhD., dagmar.draganovska@tuke.sk
- *Portfolio:*
 - *evaluation of metallic and non-metallic surfaces*
 - *evaluation of basic substrates and coatings in terms of their morphology*
 - *evaluation of surface and coating interaction*
 - *measurement of surface activity*

07

- *Areas of cooperation:*
 - **Tribology:** Ing. Gerhard Mital', PhD., gerhard.mital@tuke.sk
- *Portfolio:*
 - *adhesive wear resistance tests*
 - *abrasive wear resistance tests*
 - *testing of biomaterials*

08

- *Areas of cooperation:*
 - **Metallographic observation:** doc. Ing. Ľuboš Kaščák, PhD., doc. Ing. Anna Guzanová, PhD., doc. Ing. Janka Majerníková, PhD., lubos.kascak@tuke.sk, anna.guzanova@tuke.sk, janka.majernikova@tuke.sk
- *Portfolio:*
 - *observation and analysis of material structures*
 - *observation of defects in materials*
 - *observation of material surfaces*

09

- *Areas of cooperation:*
 - **Tests of mechanical and technological properties of materials:** doc. Ing. Janka Majerníková, PhD., doc. Ing. Miroslav Tomáš, PhD., janka.majernikova@tuke.sk, miroslav.tomas@tuke.sk
- *Portfolio:*
 - *deep-drawn tests of sheet metal*
 - *cushioning of materials*
 - *limit strain rates, limit strain curves*

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- *Areas of cooperation:*
 - **Tests on the mechanical properties of polymeric materials:** doc. Ing. Ľudmila Dulebová, PhD., Ing. Ján Varga, PhD. ludmila.dulebova@tuke.sk, jan.varga@tuke.sk
- *Portfolio:*
 - *testing of mechanical properties of polymeric materials (tensile, hardness, flexural, and impact resistance)*

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- *Areas of cooperation:*
 - **Optimisation of sheet metal processing by drawing, shearing and bending:** prof. Ing. Emil Spišák, CSc., prof. Ing. Ján Šlota, PhD., doc. Ing. Miroslav Tomáš, PhD., Ing. Peter Mulidrán, PhD., emil.spisak@tuke.sk, jan.slota@tuke.sk, miroslav.tomas@tuke.sk, peter.mulidran@tuke.sk
- *Portfolio:*
 - *optimisation of sheet metal processing conditions*
 - *modelling and simulation*

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- *Areas of cooperation:*
 - **Optimisation of plastics processing:** doc. Ing. Ivan Gajdoš, PhD., Ing. Ján Varga, PhD., ivan.gajdos@tuke.sk, jan.varga@tuke.sk
- *Portfolio:*
 - *optimisation of plastic processing conditions*
 - *modelling and simulation*