



Microstructure and Thermal Analysis in Forging **AMCASH Fully Funded Technical Support to SMEs**

Date: Wednesday 16 September 2020, 10:00 a.m.

Location: Webinar

Format: Zoom (CBM)

Introduction

Re-starting and reshaping operations in a post-Covid economy will present opportunities for SMEs as they adapt their practices, processes and supply chains.

AMCASH is one of the key support mechanisms that is assisting SMEs, including CBM members, who will be the engines for economic recovery and sustainable growth.

Available until 2022, AMCASH free technical support is helping West Midlands-based SMEs to respond to their current challenges.

What is AMCASH?

AMCASH, a partly ERDF-funded programme, supports West Midlands-based SMEs to improve and create new products and processes by tackling materials-related challenges.

Based at the School of Metallurgy and Materials of the University of Birmingham, AMCASH provides fully-funded technical support from our materials experts, using state of the art facilities.

We have expertise in metallurgical characterisation, microscopy, mechanical testing, polymer science, ceramics engineering, thermal monitoring and computational modelling.

Webinar Overview

Our webinar will outline the AMCASH programme, highlighting the free technical support applicable to CBM members, with details of how to apply for it. Our materials experts will focus on some of our services, demonstrating how we have already supported CBM members.

AMCASH Webinar Agenda

AMCASH Introduction

- Overview and application process

Microstructural Analysis

- Applying optical or electron microscopy to examine metallic components, to detect defects detection, and to determine chemical composition, element segregation, texture and grain size features

Thermal Analysis

- Using contact-based thermocouples and Infra-red monitoring, to help understand thermal loading upon metallic components. Given the fundamental impact that heating, and heating rate, has upon microstructure and mechanical properties, an accurate understanding of the thermal loads applied to metal work-pieces, billets and components is crucial within process development and optimisation.

Partnership opportunities

- Further collaboration with University of Birmingham

Q&A