

## ***Determination of Material Parameters and Component Testing using Optical 3D Metrology***

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For the characterization of material properties and experimental investigations of complex component behaviour, the use of optical measuring is increasing rapidly. Here the possibilities of actual optical measuring systems should be presented. Their results provide material properties, are very effective in verification of numerical simulations and improve the understanding of behavior in components under load.

The implementation of optical measuring techniques deliver full-field deformation and strain distributions with a high spatial and temporal resolution in dynamic and static loading conditions. These advantages are presented based on typical application examples. Due to the operator and ambient condition independent high repeatability, reliability and accuracy, the system is well suited to meet the requirements for standardized testing procedures.