Author's Accepted Manuscript

Influence of 3D connectivity of rigid phases on damage evolution during tensile deformation of an AlSi12Cu4Ni2 piston alloy

Katrin Bugelnig, Federico Sket, Holger Germann, Thomas Steffens, Robert Koos, Fabian Wilde, Elodie Boller, Guillermo Requena



PII:S0921-5093(17)31355-2DOI:https://doi.org/10.1016/j.msea.2017.10.035Reference:MSA35638

To appear in: Materials Science & Engineering A

Received date: 8 August 2017 Revised date: 10 October 2017 Accepted date: 12 October 2017

Cite this article as: Katrin Bugelnig, Federico Sket, Holger Germann, Thomas Steffens, Robert Koos, Fabian Wilde, Elodie Boller and Guillermo Requena, Influence of 3D connectivity of rigid phases on damage evolution during tensile deformation of an AlSi12Cu4Ni2 piston alloy, *Materials Science & Engineering A*, https://doi.org/10.1016/j.msea.2017.10.035

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Influence of 3D connectivity of rigid phases on damage evolution during tensile deformation of an AlSi12Cu4Ni2 piston alloy

Katrin Bugelnig¹¹, Federico Sket², Holger Germann³, Thomas Steffens³, Robert Koos⁴,

Fabian Wilde⁵, Elodie Boller⁶, Guillermo Requena^{7, 8}

¹Institute of Materials Science and Technology, Technical University of Vienna, Karlsplatz

13/E308, A-1040 Vienna, Austria.

²IMDEA Materials Institute, C/ Eric Kandel 2, 28906 Getafe, Spain

³KS Kolbenschmidt GmbH, Karl-Schmidt-Straße, 74172 Neckarsulm, Germany

⁴FRM II, TU München, Lichtenbergstraße 1, 85748 Garching, Germany

⁵Helmholtz-Zentrum Geesthacht, Zentrum für Material- und Küstenforschung GmbH, Max-Planck-Straße 1, 21502 Geesthacht, Germany

⁶ESRF-The European Synchrotron, CS40220, Grenoble Cedex 9, France

⁷German Aerospace Centre, Linder Höhe, 51147 Cologne, Germany,.

⁸Metallic Structures and Materials Systems for Aerospace Engineering, RWTH Aachen

University, Aachen 52062, Germany

katrin.bugelnig@tuwien.ac.at

Katrin.Bugelnig@dlr.de

guillermo.requena@dlr.de

Abstract:

¹ present address: German Aerospace Centre, Linder Höhe, 51147 Cologne, Germany.

Download English Version:

https://daneshyari.com/en/article/7974608

Download Persian Version:

https://daneshyari.com/article/7974608

Daneshyari.com