Accepted Manuscript

Microstructure influence on the fragmentation properties of dense silicon carbides under impact

Pascal Forquin , Gilles Rossiquet , Jean-Luc Zinszner , Benjamin Erzar

PII: S0167-6636(17)30666-X

DOI: 10.1016/j.mechmat.2018.03.007

Reference: MECMAT 2855

To appear in: Mechanics of Materials

Received date: 25 September 2017
Revised date: 18 February 2018
Accepted date: 22 March 2018



Please cite this article as: Pascal Forquin, Gilles Rossiquet, Jean-Luc Zinszner, Benjamin Erzar, Microstructure influence on the fragmentation properties of dense silicon carbides under impact, *Mechanics of Materials* (2018), doi: 10.1016/j.mechmat.2018.03.007

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 proof before it is published in its final 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

Highlights

- Four SiC grades are subjected to edge-on impact and normal impact tests
- The fragmentation process is visualised using ultra-high speed imaging
- Crack patterns are analyzed by means of post-mortem observations
- A strong influence from the ceramic's microstructure on the fragment size distribution is observed
- Crack-density is determined by the population of flaws according to the DFH model

Download English Version:

https://daneshyari.com/en/article/7178499

Download Persian Version:

https://daneshyari.com/article/7178499

<u>Daneshyari.com</u>