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

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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