

Title (en)  
Erosion barrier for thermal barrier coatings

Title (de)  
Erosionssperre für Wärmedämmschichten

Title (fr)  
Barrière contre l'érosion pour revêtements de barrière thermique

Publication  
**EP 2000557 A1 20081210 (EN)**

Application  
**EP 07252248 A 20070604**

Priority  
EP 07252248 A 20070604

Abstract (en)  
A workpiece, such as a turbine engine component, comprises a substrate (50), a thermal barrier coating (52) on the substrate (50), and a hard erosion barrier (54) deposited over the thermal barrier coating (52). The erosion barrier (54) preferably has a Vickers hardness in the range of from 1300 to 2750 kgf/mm<sup>2</sup> (12.8 to 27.0 GPa). The erosion barrier (54) may be formed from aluminum oxide, silicon carbide, silicon nitride, or molybdenum disilicide. The erosion barrier (54) may be formed using either an electrophoretic deposition process or a slurry process.

IPC 8 full level  
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Citation (applicant)  
• EP 0783043 A1 19970709 - GEN ELECTRIC [US]  
• EP 1788122 A1 20070523 - GEN ELECTRIC [US]

Citation (search report)  
• [X] EP 0783043 A1 19970709 - GEN ELECTRIC [US]  
• [XY] EP 1788122 A1 20070523 - GEN ELECTRIC [US]  
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• [A] EP 0381179 A2 19900808 - ENGELHARD CORP [US]  
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