



Detailed Microstructural Characterization of the Disk Alloy Me3

By Timothy P. Gabb

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 48 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. The advanced powder metallurgy disk alloy ME3 was designed using statistical screening and optimization of composition and processing variables in the NASA General Electric Pratt and Whitney HSREPM disk program to have extended durability for large disks at maximum temperatures of 600 to 700 C. Scaled-up disks of this alloy were then produced at the conclusion of that program to demonstrate these properties in realistic disk shapes. The objective of the present study was to assess the microstructural characteristics of these ME3 disks at two consistent locations, in order to enable estimation of the variations in microstructure across each disk and across several disks of this advanced alloy. Scaled-up disks processed in the HSREPM Compressor Turbine Disk program had been sectioned, machined into specimens, and tested in tensile, creep, fatigue, and fatigue crack growth tests by NASA Glenn Research Center, in cooperation with General Electric Engine Company and Pratt and Whitney Aircraft Engines. For this study, microstructures of grip sections from tensile specimens in the bore and rim were evaluated from these disks. The major and minor phases were identified and quantified using transmission...



READ ONLINE
[8.14 MB]

Reviews

Complete guideline! Its this type of great read through. it absolutely was writtern quite perfectly and helpful. I am very happy to explain how this is basically the best book i actually have read through during my personal life and can be he very best book for at any time.

-- **Joshua Gerhold PhD**

A very awesome book with perfect and lucid reasons. It really is basic but shocks within the 50 percent of the book. Its been designed in an exceptionally easy way and is particularly merely right after i finished reading this ebook where in fact changed me, change the way i think.

-- **Meagan Roob**