

Physical and chemical analysis of the material cast of a prosthesis for tibia (morphology and DSC).

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Abstract : In this approach, we have shown the results of Scanning Electron Microscope characterization (SEM), Optical Microscopy and Differential Scanning Calorimetry (DSC). The prosthesis is a composite material consisted of an organic matrix reinforced by a glass fiber and perlon, prepared by a standard casting method under vacuum. All our results show us: -The microscopic analysis has a porous structure. -Furthermore, the optical micrography shows the arrangement of the fiber in the matrix. -The result of Differential Scanning Calorimetry shows a glass transition (T_g).

Keywords : physical analysis, prosthesis for tibia, MEB, DSC, optical microscopy.