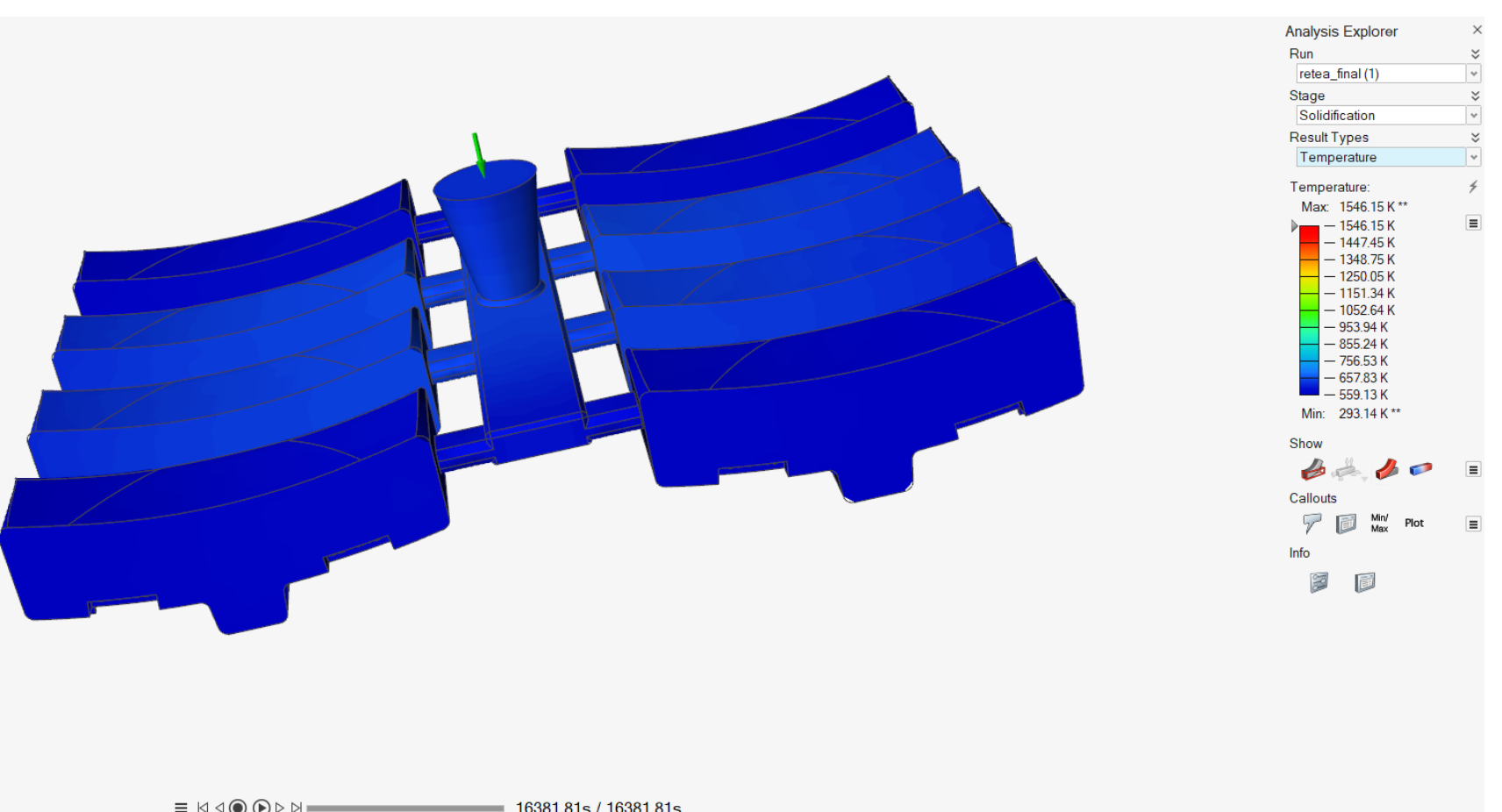
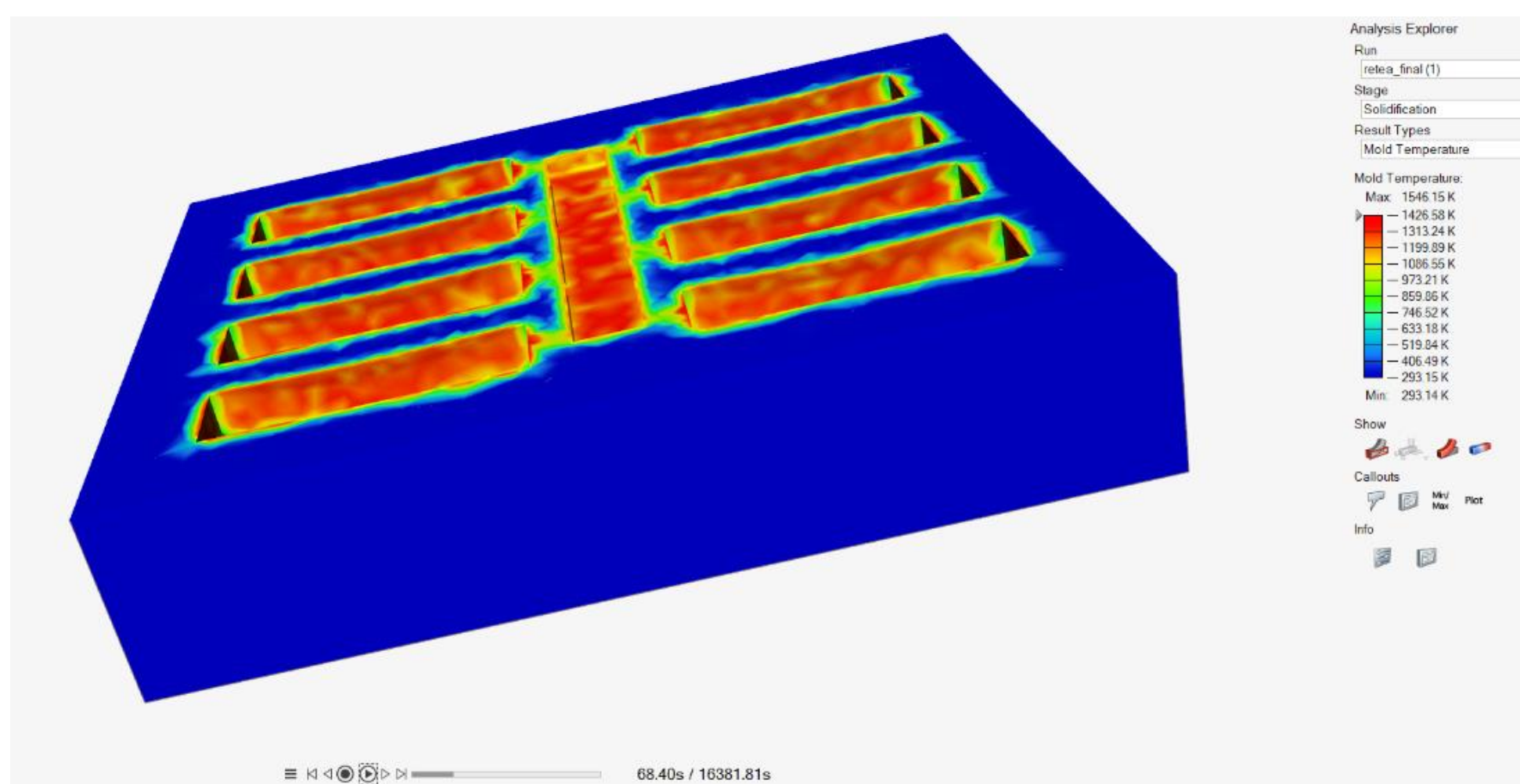
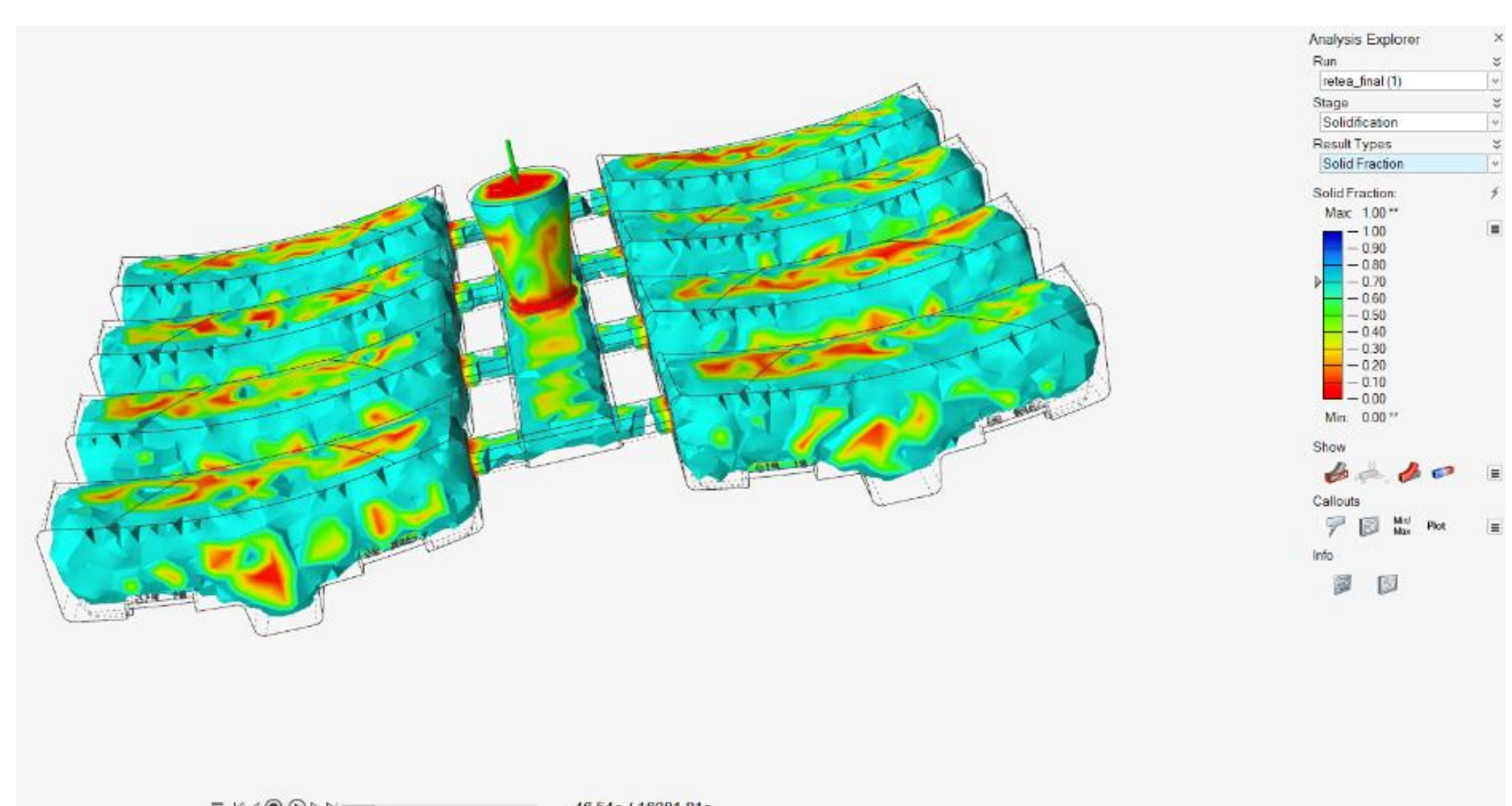
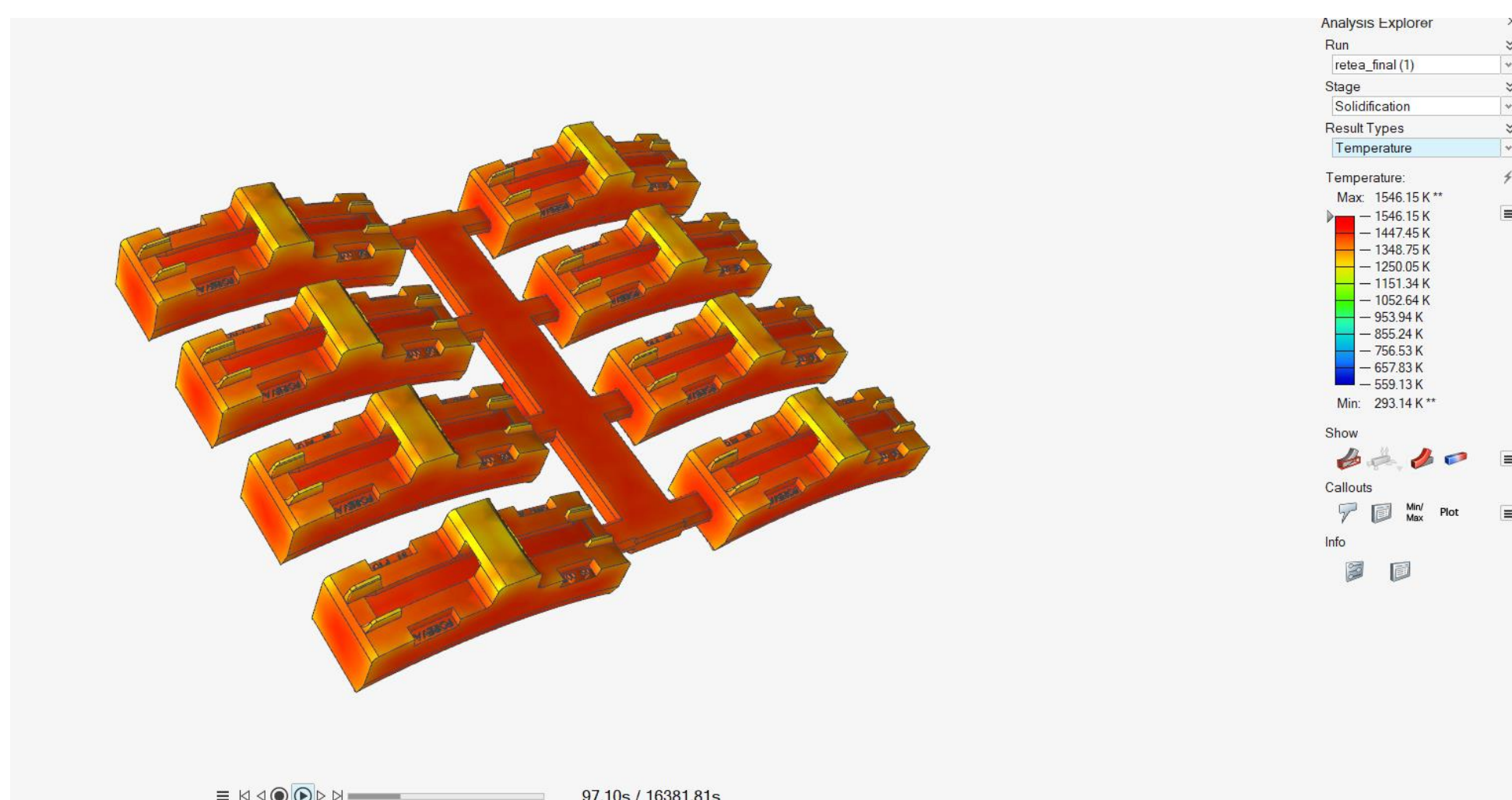
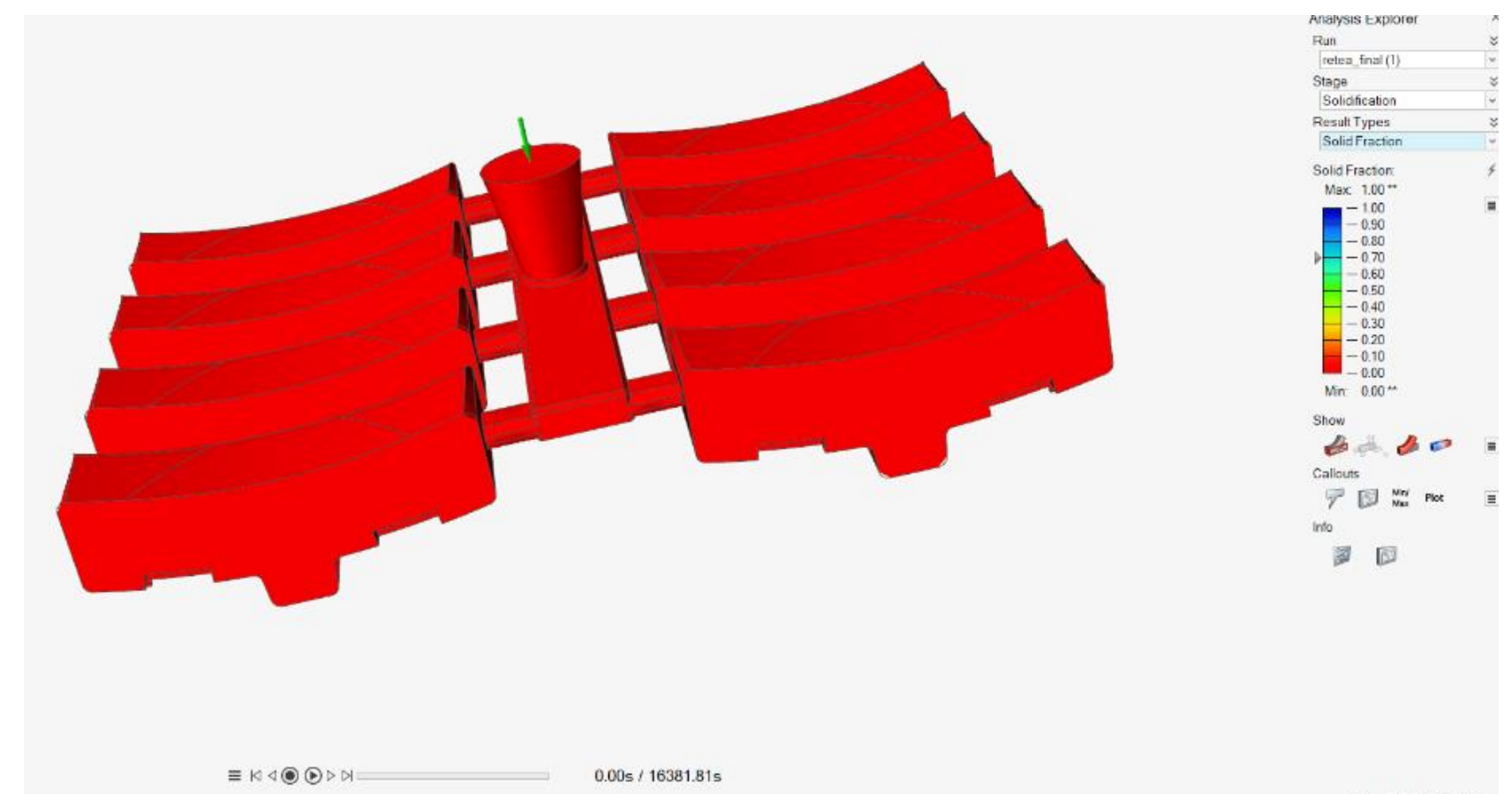
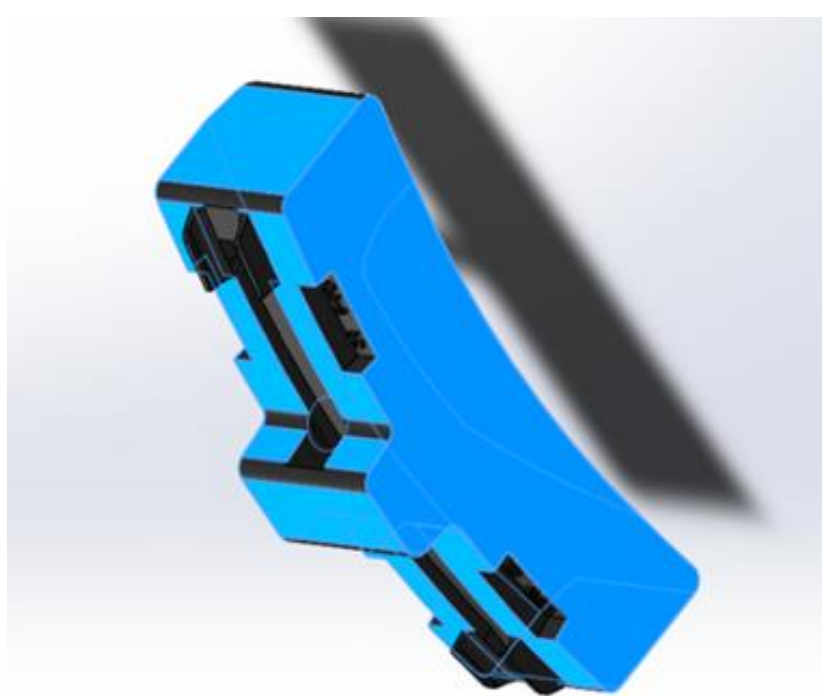


Simulation of casting and solidification of brake shoes from phosphorous cast iron

PhD Thesis

Authors: Flavius Bucur, Ana Socalici, Vasile Putan, Ana Josan, Marius Ardelean

The solidification of cast metal alloys in parts greatly influences the quality of the cast parts. The solidification process influences the micro and macrostructure of the parts, their compactness, mechanical strength, dimensional accuracy and surface quality. When making brake shoes intended for rolling stock, P10 phosphorous cast iron is the most widely used. Solidification modeling and simulation was done using SolidWorks and Altair Inspire Cast. The solidification process of brake shoes is influenced by constructive and technological factors.



ACKNOWLEDGMENT: This paper was financially supported by the Project "Network of excellence in applied research and innovation for doctoral and postdoctoral programs" / InoHubDoc, project co-funded by the European Social Fund financing agreement no. POCU/993/6/13/153437

Contact: flavius_bucur@yahoo.com +40743011626