

COMPOSITE CORE FOR USE IN PRECISION INVESTMENT CASTING

Abstract:

A composite core for an investment casting process, the core being comprised of both a ceramic portion and a refractory metal portion, with the refractory metal portion being so disposed as to perform the function of a plurality of such refractory metal elements. In particular, a refractory metal element attached to a trailing edge of a ceramic element extends beyond the plane of a tip end of the ceramic element so as to replace the refractory metal element otherwise extending from the ceramic tip edge. The refractory metal element also extends beyond the space to be occupied by the wax casting, both in the direction of the tip end and the trailing edge such that improved placement and securing of the core is facilitated during the casting process. A further embodiment uses a single refractory metal element that extends into both the airfoil portion and an orthogonal extending platform portion thereof.

Figure 1