

A composite ingot for producing by evaporating a functionally gradient cover with an outer ceramic layer on a metal lining has a ceramic base, a first insertion disposed at its upper part made of the metals or alloys and oxides having different buoyancy of vapor at the evaporating temperature, and at least one additional fragment-insertion the content of which is different from the content of the first insertion. The additional fragment-insertion is made of metal and/or nonmetal materials or its mixtures. A one-stage process for forming on the metal linings the cover of defined gradient content and structure across the cover thickness is provided. As the materials for the composite ingot base the various refractory compositions may be chosen. First of all, the covers are designed for heat protection, protection from oxidation, corrosion and erosion protection, and the parts wearing in the contemporary power sets, for example, in the gas turbines or the internal-combusting engines.