

ABSTRACT

"METHOD OF MANUFACTURING POROUS ELECTRODE WIRE FOR ELECTRIC DISCHARGE MACHINING AND STRUCTURE OF THE ELECTRODE WIRE."

The present invention relates to a porous electrode wire for use in electrical discharge machining and the method of manufacturing the same. The wire improves the machining speed at least 15% compared with a conventional zinc coated wire, which results from an increased cooling ability of the wire with a cooling liquid because of the increase in the surface area of the wire having porous surface morphology. Since the surface of the porous wire presents uniform profile of outer periphery rather than surface protrusions, it does not affect machining accuracy. Further, the porous nature of the wire is expected to improve flushability during the electrical discharge machining, providing spaces to eliminate particles of the machining. Therefore, in accordance with the method of the present invention, a zinc coated wire having improved performance of machining speed and flushability compared with a conventional coated wire can be provided without additional processes.

Fig 4a