

SUMMARY

TPS (Titanium Plasma Spray) Coating is a porous coating made using vacuum plasma spray process that can be applied on:

- Ti6AL4V, Ti6AL4V Eli, CoCr and TiC substrate materials.
- Typical coating thickness is from 0.010 – 0.030 inches

CHARACTERISTICS

TPS coating has a rough surface topography and highly interconnected porosity which helps in bone integration. Figures 1 and 2 show depicts these two characteristics respectively.

TYPICAL PROPERTIES

The properties of TPS coating are listed below in the table 1. These properties are typical expected values, the exact values depend on individual application in part determined by the size and geometry of the part.

TABLE I
TPS Coating Characteristics

Tensile (psi)	>5000 psi
Thickness (inches)	0.010 - 0.030
Pore size (µm)	100 - 250
% Porosity	30-50

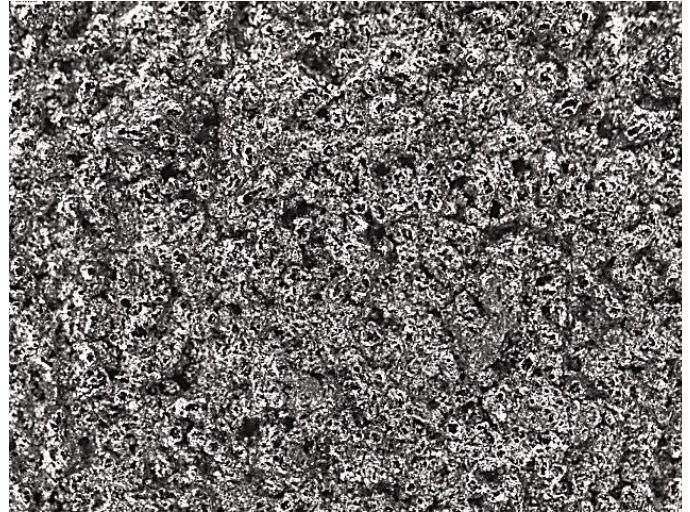


Figure 1: TPS coating has a rough surface topography

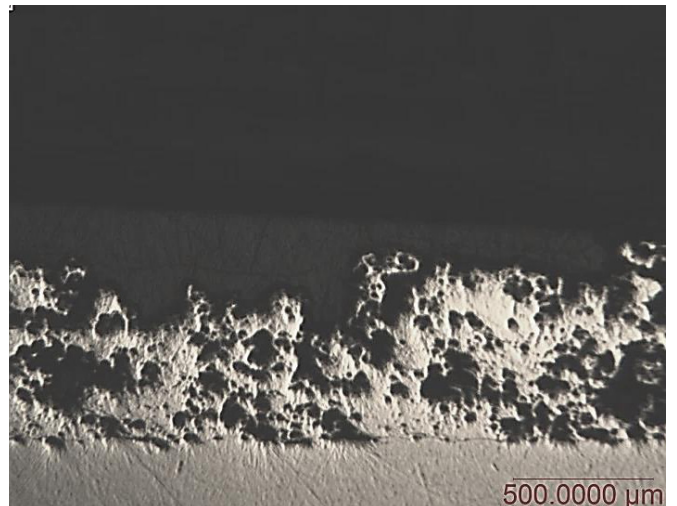


Figure 2: TPS coating has a highly interconnected porosity



Figure 3: TPS coating applied to acetabular cups.