

INERT HIGH HARDNESS MATERIAL FOR TOOL LENS PRODUCTION

ABSTRACT

In one aspect, tungsten carbide material systems are described herein which, in some embodiments, can provide desirable characteristics including chemical inertness, high hardness, reduced sensitivity to local compositional fluctuations and/or enhanced machining properties. In some embodiments, a tungsten carbide material described herein comprises 5.85-6.13 wt. % carbon, 0.85-1.05 wt. % chromium, less than 0.3 wt. % binder, less than 0.3 wt. % impurities and a balance being tungsten.

(Fig. 1)