

Material Grade	Density g/cm3	Hardness (HRA)	T.R.S. (MPa)	Comp.S. (Mpa)	Application
FF10	14.6	91	3,460	5,360	Drawing Tool for Light Impact, Powder Molding, Guide, Wire Drawing Die, Nozzle, Gauge, etc.
FF20	14.3	90	3,500	4,800	General Drawing Tool, Punching Tool, Powder Molding, Guide, Cutting Tool, Wire Drawing Die, Core, Roll, Plug, Ring, Blade, etc.
FF40	14	88.5	3,780	4,360	Drawing Tool for Heavy Impact, Punching Tool, Punch, Punch for Powder Molding, Cutting Tool, Bender, Die for Powder Molding(Special Configuration), etc.

FF type (Fine Grain Tungsten Carbide)

Alloys using fine-grain WC: high-strength and excellent in chipping resistance. Suited to tools that are required to have wear resistance and others. Special blending reduce propagation of thermal cracks due to wire cut or cracks due to stress.