High wear-resistant cemented carbide - SS grade

High wear-resistant cemented carbide (Abrasive wear-resistance)

Extremely high

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h hardness	for outstanding abrasive wear-resistance.
ation	Regarding abrasive wear, hardness is inversely related to wear amount. Outstanding improved hardness by special composition design.
	Attention to handling and processing because of lower fracture toughness than general cemented carbides physically.
ations	Sandblasting nozzle, Power supply die for EDM, Water jet nozzle, Descaling nozzle, etc.

Physical properties of SS grade

Our grade	WC grain size [μm]	Co content [%]	Density [×10³kg/m³] {g/cm³}	Hardness HV	TRS [GPa]
SS13	1.0 (less than)	1	14.2	2450	1.0
SS15	1.0 (less than)	4	14.6	2100	2.0
Reference G1	1.0 - 2.5	6	14.9	1750	2.0

(Typical figures)

Line up ... SS13, SS15

Micrographs of SS grade



SS13

By metallurgical microscope (×1000)

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Characteristic of wear-resistant

Blast wear of low pressure

Photo shows the inside of blast nozzle after injected for eight hours running time. (Use the air pressure 1.3 MPa and alumina 10 - 50 µm. Nozzle diameter 7 mm.)



Blast wear of high pressure

Figure shows life of blast nozzle injected under high pressure. (Injection pressure 245 MPa)



Line up ... SS13, SS15

Wear of carbon material

Conducted carbon cutting test by SNGN120308 tip which is made from SS grade. Figure shows wear quantity of cutting part.



Rub wear with metal

Figure shows the inside of feed die by electric discharge machining using fine wire.



SS grade wear area



