

# ROCK UCS AND BIT CODE

ROCK UCS AND BIT CODE				
ROCK UCS		ROCK TYPE	Tungsten Carbide Insert Tricone Bit Series	
PSI	Mpa			
0	0	Claystone, soft mudstone	4 Series 4-1 to 4-4	5 Series 5-1 to 5-4
4,000	28	Soft Shale Loose Sandstone, Coal		
8,000	55	Medium Shales, hard mudstone Chalky Limestone		
12,000	83	soft Tuff, Soft Schist Loose Sandstone		
16,000	110	Hard Shale, Slate Limestone (normal), Siltstone		
20,000	138	Peridotite, komatiite and other ultramafic rock Hard limestone, Dolomite, marble		
24,000	166	Arkose (feldspar-rich sandstone) Fresh sedimentary clastic rock		
28,000	193	Gabbro, Diabase Syenite		
32,000	221	Amphibolite		
36,000	248	Basalt (fresh) Solid Sandstones (quartz rich), siliceous siltstone	6 Series 6-1 to 6-4	
40,000	276	Andesite, Andesite porphyry		
44,000	303	Diorite, Diorite porphyry Chert (mud-rich)		
48,000	331	Monzonite, Soft Granite, monzonite porphyry		
52,000	359	Quartzite (silts origin) Gneiss (igneous rock origin)	7 Series 7-1 to 7-4	
56,000	386	Hornfels Rhyolite, Rhyolite porphyry Granodiorite, granite porphyry		
60,000	414	Granite, Tonalite high grade magnetite ore, very low silica Silicified basalt (not abrasive but strong) Taconite	8 Series 8-1 to 8-4	
64,000	441	Hematite Ore (high-silica) siliceous clast-dominated volcanic tuff/clastic rock		
68000	469	Hard and Abrasive Quartzite (pure quartz), thick quartz-dominated ore Thick bedded and massive manganese ore Banded Iron Formation (high silica) siliceous chert		
Higher		Magnetite ore (high-silica), Extremely hard and abrasive basalt, Biwabik iron formation, Extremely hard and abrasive quartzite.		

The table was drafted by BD Product Specialist: Matt Starcevic