

MILLING GRADE OVERVIEW IN NON FERROUS OPERATION



TECHNICAL GUIDE

ISO 513											
NON FERR OUS	Range	5	10	15	20	25	30	35	40	45	50
	Uncoated	HFK 121		HFK 201							
Vc	m/min	300 - 600			300 - 500						

Finishing

Vc increasing
Vf small
ap small
Wear resistance increasing
Toughness decreasing



Roughing

Vc decreasing
Vf large
ap large
Wear resistance decreasing
Toughness increasing

HM - GRADE	SCALE 0-10=RANGE OF										APPLICATION		APPLICATION		
	TN Toughness / WR Wear resistance										Cutting condition		Machining condition		
	2	3	4	5	6	7	8	9	10	DRY	WET	F	M	R	
HFK 121	TN	■	■	■	■	■	■	■	■			●			
	WR	■	■	■	■	■	■	■	■						
HFK 201	TN	■	■	■	■	■	■	■	■						
	WR	■	■	■	■	■	■	■	■						

Cutting conditions	Machining conditions	Recommendation
DRY = without COOLING	F Finishing	● Ideal
	M Medium machining	○ Stil recommended
WET = with COOLING	R Roughing	— Not recommended