



Ultra Carbide Inc.

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# G-ELIT

Ultra Carbide Inc. /Plant  
G-Elit Hartstoffe GmbH  
Lübarser Straße 10 -38  
13435 Berlin

## Carbide grade: DK 400N

### Chemical Composition:

WC 90,00 %  
Co 10,00 %



### Physical Properties:

Density (ISO 3369)	[g/cm <sup>3</sup> ]:	14,50 ± 0,20
Coercive Force (ISO 3326)	[kA/m]:	19,89 ± 2,79
	[Oe]:	250 35
Magnetic Saturation	[0.1µT·m <sup>3</sup> /kg]:	160 ± 10
Hardness (ISO 3878)	HV30 [kg/mm <sup>2</sup> ]:	1580 ± 50
Hardness (ISO 3778)	HRA	91,7 0,2
TRS (ISO 3327/Type B)	[N/mm <sup>2</sup> ]:	3200 Minimum
K1C	[MPa ](m) <sup>1/2</sup>	11,0 Minimum

Porosity A<02 B<02  
[ISO 4505]

Microstructure Homogenous, no eta-Phase, no free carbon

WC- Grain Size (FSSS)	0.7 µm
Grain Growth Inhibitors	VC 0,20%, Cr3C2: 0,5%
Classification [ISO 513]	K20/K40, US/Buick C1 C10, C5 coated

Ultra fine grade with maximum toughness for rotating tools, especially roughing endmills.