

Cemented carbide grades

Grade name	WC grain size	Chemical composition [wt.-%]						Physical properties		
		Cobalt	Nickel	WC	TiC	TaNbC	others	density [g/cm ³]	hardness [HV30]	hardness [HRA]
VB10	Extra coarse	6,0	–	94,0	–	–	–	14,90	1340	90,1
VB30	Extra coarse	9,5	–	90,5	–	–	–	14,60	1200	88,4
VG07	Extra coarse	7,0	–	93,0	–	–	–	14,80	1180	87,8
VG20	Medium-coarse	9,0	–	91,0	–	–	–	14,60	1340	90,1
VG25	Medium-coarse	12,0	–	88,0	–	–	–	14,35	1250	89,0
VG27	Extra coarse	30,0	–	70,0	–	–	–	12,70	730	80,5
VG31	Medium	14,0	–	86,0	–	–	–	14,10	1200	88,4
VG50	Extra coarse	13,5	–	86,5	–	–	–	14,10	950	85,2
VG53	Extra coarse	17,0	–	83,0	–	–	–	13,80	860	83,5
VG54	Medium	20,0	–	80,0	–	–	–	13,55	1000	86,1
VG56	Extra coarse	22,5	–	77,5	–	–	–	13,30	840	83,1
VG61	Extra coarse	26,0	–	74,0	–	–	–	13,10	770	81,3
VGH1	Submicron	7,5	–	91,7	–	–	●	14,70	1800	93,1
VGH2	Submicron	9,5	–	89,7	–	–	●	14,48	1600	92,0
VGH3	Submicron	13,5	–	85,9	–	–	●	14,10	1450	91,0
VH20	Medium	6,0	–	92,5	–	●	–	14,90	1590	92,0
VN08	Submicron	–	8,5	90,5	–	–	●	14,62	1600	92,0
VN13	Extra coarse	–	13,0	87,0	–	–	–	14,30	980	85,7
VN20	Extra coarse	1,0	5,0	94,0	–	–	●	14,90	1360	90,3
VN40	Extra coarse	7,0	8,0	84,2	–	–	●	13,90	925	84,6
VN50	Extra coarse	10,0	8,8	80,0	–	–	●	13,55	800	82,2
VN70	Extra coarse	12,0	12,0	75,0	–	–	●	13,05	730	80,5
VN76	Medium-coarse	14,25	14,25	70,0	–	–	●	12,70	730	80,5
VN77	Extra coarse	14,25	14,25	70,0	–	–	●	12,70	600	77,5
VS03	Medium-coarse	10,0	–	50,0	●	●	–	10,50	1550	91,7
VS20	Medium-coarse	10,0	–	75,0	●	●	–	11,80	1500	91,5
VS25	Medium-coarse	10,0	–	72,0	●	●	–	12,55	1490	91,3
VS27	Medium	6,0	–	89,5	●	●	●	14,11	1610	92,1
VS30	Medium-coarse	10,0	–	83,0	●	●	–	13,25	1450	91,0
VS40	Medium	11,0	–	79,0	●	●	–	12,95	1420	90,6
VS50	Medium	15,0	–	75,0	●	●	–	12,60	1300	89,3
VU10	Submicron	6,0	–	87,5	●	●	●	13,30	1830	93,2
VU20	Fine	9,0	–	82,0	●	●	●	12,95	1650	92,4

- contains
- does not contain

Other carbide grades on request
February 2020

WC grain sizes [µm]						
Nano	Ultrafine	Submicron	Fine	Medium	Coarse	Extra coarse
< 0,2	0,2 – 0,5	0,5 – 0,8	0,8 – 1,3	1,3 – 2,5	2,5 – 6,0	> 6,0

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