

STANDARD READY-TO-PRESS POWDER GRADES

The standard grades shown below are representative of ready-to-press powders produced at Hyperion Materials & Technologies' European facility. We also have the capability, in both North America and Europe, to tailor-make carbide powders to better fit your application needs.

Hyperion Grades	CHEMICAL COMPOSITION (weight %)							Sintering Temperature (°C)	Density (g/cm ³)	Vickers Hardness (HV30)	Rockwell Hardness (HRA)	Sintered Grain Size (µm)
	WC	Co	Ni	Cr ₃ C ₂	TiC	TaC +NbC	Other Elements					
STANDARD WEAR PART GRADES												
K03	96.85	3		0.15				1410	15.20	1950	94	0.8
K10F	93.8	6		0.20				1410	14.95	1770	93.2	0.8
K10	94.35	5.5		0.15				1450	14.95	1700	92.8	1.0
K15	89.5	10		0.50				1410	14.48	1600	92.1	0.8
K20	93.35	6.5		0.15				1450	14.90	1580	92	1.5
K30	91.25	8.5		0.25				1450	14.65	1455	91	2.0
K40	87.5	12		0.50				1410	14.25	1295	89.3	2.0
K45	84.5	15		0.50				1360	13.96	1210	88.3	2.0
G30	85	15						1360	14.00	1030	86	5.0
G40	80	20						1360	13.55	910	84.6	5.0
G50	75	25						1360	13.10	810	83.2	5.0
G56	72	28						1360	12.85	775	82.8	5.0
STANDARD CORROSION RESISTANT GRADES												
N6	93.85		6	0.15				1450	14.95	1500	91.4	1.0
N10	89.5		10	0.50				1410	14.41	1350	89.8	1.0
C2	93.1	0.5	6				0.4	1450	14.90	1390	90.3	3.0
C4	84		5.65		8.75		1.6	1450	12.65	1750	93.1	1.5
STANDARD MINING TOOL GRADES												
M1	93.5	6.5						1450	14.90	1440	90.8	3.0
M2	91	9						1450	14.60	1215	88.4	5.0
M4	89	11						1410	14.40	1180	87.9	4.0
M5	90.5	9.5						1450	14.55	1110	87	10.0
M6	87	13						1410	14.20	1100	86.9	5.0
STANDARD CUTTING TOOL GRADES												
K01	92.5	4.5				3.0		1450	15.00	1810	93.4	0.8
K02	90.2	6.8				3.0		1450	14.72	1725	93	0.8
P10	51.75	9.75			19	19.5		1450	10.20	1530	91.6	2.0
P10S	68	9.0			18	5.0		1450	10.65	1500	91.4	2.0
P20	66.9	8.8			12	12.3		1450	11.50	1560	91.9	2.0
P20S	76	9.0			10	5.0		1450	12.05	1500	91.4	2.0
P25F	69.59	10.1			6.22	14.09		1450	12.40	1485	91.3	1.5
P25S	78.5	9.0			7.5	5.0		1450	12.55	1450	90.9	2.0
P35	74.23	11.37			6.39	8.01		1410	12.50	1400	90.4	3.0
P30S	80.5	9.5			5.0	5.0		1450	13.00	1400	90.4	2.0
P40S	79	11			5.0	5.0		1450	12.90	1350	89.8	2.0
M10	83.95	6.02			7.38	2.65		1450	12.85	1650	92.5	1.5
M20	82.23	8.05			5.31	4.41		1450	13.10	1565	91.9	1.5

All data shown are typical values.

