



DK - RUTILE

Rutile “A” Grade

Chemical Composition (Typical)	
Name of Chemical	%
TiO2	95.07
Fe2O3	0.320
SiO2	1.015
ZrO2 +HfO2	1.564
Al2O3	0.224
V2O5	0.70G
P*	0.020
P2O5	0.050
S*	0.004
SO3	0.008
CaO	0.011
MgO	0.004
Nb2O5	0.152
U(ppm)	44
Th (ppm)	20

Physical Parameters	
Parameters	Typical
LOI @ 1000oC*6	0.18 %
H2O @ 110oC*7	0.14 %
Radioactivity	626 Bq/kg
Specific Gravity	4.3
Bulk Density	2.53 t/m3
Colour	Black
Structure	Tetragonal
Hardness	6.5 mohs scale

Mineralogical Analysis	
Minerals	%
Rutile	98.05
Zircon	1.59
Leucoxene	0.16
Others	0.20

Particle Size Analysis		
Mesh	MM	Retained %
50	0.300	0.02
60	0.250	3.49
80	0.180	18.41
100	0.150	16.48
120	0.125	18.26
140	0.106	13.54
170	0.0G0	13.24
200	0.075	11.10
230	0.063	3.81
Pan		1.65

Applications / Uses

- 1. Welding Rods
- 2. Welding Flex
- 3. TiO2 Pigments





DK - RUTILE

Rutile “B” Grade

Chemical Composition (Typical)	
Name of Chemical	%
TiO2	92.55
Fe2O3	2.423
SiO2	1.204
ZrO2 +HfO2	1.720
Al2O3	0.358
V2O5	0.680
P*	0.035
P2O5	0.080
S*	0.013
SO3	0.032
CaO	0.024
MgO	0.006
Nb2O5	0.149
U(ppm)	40
Th (ppm)	90

Mineralogical Analysis	
Minerals	%
Titanium Bearing Minerals	97.96
Zircon	1.82
Others	0.22

Physical Parameters	
Parameters	Typical
LOI @ 1000oC*6	0.38 %
H2O @ 110oC*7	0.14 %
Radioactivity	841 Bq/kg
Specific Gravity	4.3
Bulk Density	2.52 t/m3
Colour	Black
Structure	Tetragonal
Hardness	6.5 mohs scale

Particle Size Analysis		
Mesh	MM	Retained %
50	0.300	0.32
60	0.250	3.16
80	0.180	16.32
100	0.150	18.16
120	0.125	20.84
140	0.106	14.32
170	0.060	12.56
200	0.075	10.12
230	0.063	3.28
Pan		0.92

Applications / Uses

1. Welding Rods
 2. Welding Flex
 3. TiO2 Pigments





DK - RUTILE

Rutile “C” Grade

Chemical Composition (Typical)	
Name of Chemical	%
TiO2	90.69
Fe2O3	3.451
SiO2	1.32G
ZrO2 +HfO2	1.831
Al2O3	0.681
V2O5	0.661
P*	0.031
P2O5	0.068
S*	0.014
SO3	0.034
CaO	0.026
MgO	0.026
Nb2O5	0.169
U(ppm)	44
Th (ppm)	160

Physical Parameters	
Parameters	Typical
LOI @ 1000oC*6	0.42 %
H2O @ 110oC*7	0.15 %
Radioactivity	939 Bq/kg
Specific Gravity	4.3
Bulk Density	.53 t/m3
Colour	Black
Structure	Tetragonal
Hardness	6.5 mohs scale

Mineralogical Analysis	
Minerals	%
Titanium Bearing Minerals	97.77
Zircon	01.98
Others	00.25

Particle Size Analysis		
Mesh	MM	Retained %
50	0.300	0.48
60	0.250	3.28
80	0.180	18.02
100	0.150	18.68
120	0.125	20.62
140	0.106	12.96
170	0.0G0	11.36
200	0.075	10.26
230	0.063	3.50
Pan		0.84

Applications / Uses

1. Welding Rods
2. Welding Flex
3. TiO2 Pigments

