



YOUR TRUSTED GLOBAL PARTNER



Arsenal Minerals

Reliable. Global. Strategic

Who We Are

- 🌐 Arsenal Minerals is a global trading partner in the industrial raw materials sector, supplying high-grade critical materials with precision, reliability, and scale.
- 🚚 We connect the world's leading mining companies with global clients—streamlining trade, logistics, and quality control from mine to customer.
- ✓ With a presence across multiple markets, trusted regional partners, and a sharp focus on quality, we make global supply chains smoother, smarter, and more secure.





Our Services

We manage every stage of the industrial minerals supply chain — so our clients don't have to:

- 🔍 Sourcing & Vetting – Identifying reliable, high-quality suppliers worldwide
- 🤝 Trading Operations – Managing negotiations, contracts & execution
- 🚚 Logistics & Delivery – Handling global shipments, customs & documentation
- 🧪 Quality Control – Testing to match exact specs; CoAs provided
- 📊 Market Research – Exploring new market opportunities
- 📦 Packaging & Labelling – Custom presentation and documentation

Why Work With Us

What sets us apart — beyond the service:

- ✓ Global Reach – Active across continents with proven logistics and established net of warehouses across Europe, Middle East and US.
- ✓ Tailored Solutions – Every batch matched to client needs
- ✓ Trusted Sourcing – Long-term partnerships in Sierra Leone, South Africa, Australia & China
- ✓ Reliable Testing – Multi-lab quality control in China, Australia, Indonesia and Ukraine.
- ✓ Seamless Execution – We manage sourcing, shipping & after-sales
- ✓ Local Support – Fast, informed communication on the ground

Get in touch to learn more about how we can support your business needs.

**What We Offer Isn't Just Minerals
— It's Reliability, at Scale.**



Sourcing & Partnerships

Where Our Minerals Come From

Key Origins

-  Sierra Leone — High-grade rutile, ilmenite
 -  South Africa — Rutile
 -  Ukraine — Zircon
 -  Indonesia — Zircon
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-  China — Mineral processing and refinement:
 - The heavy mineral concentrate is 100% unblended raw product, sourced entirely and directly from the mining areas

Trusted Partners

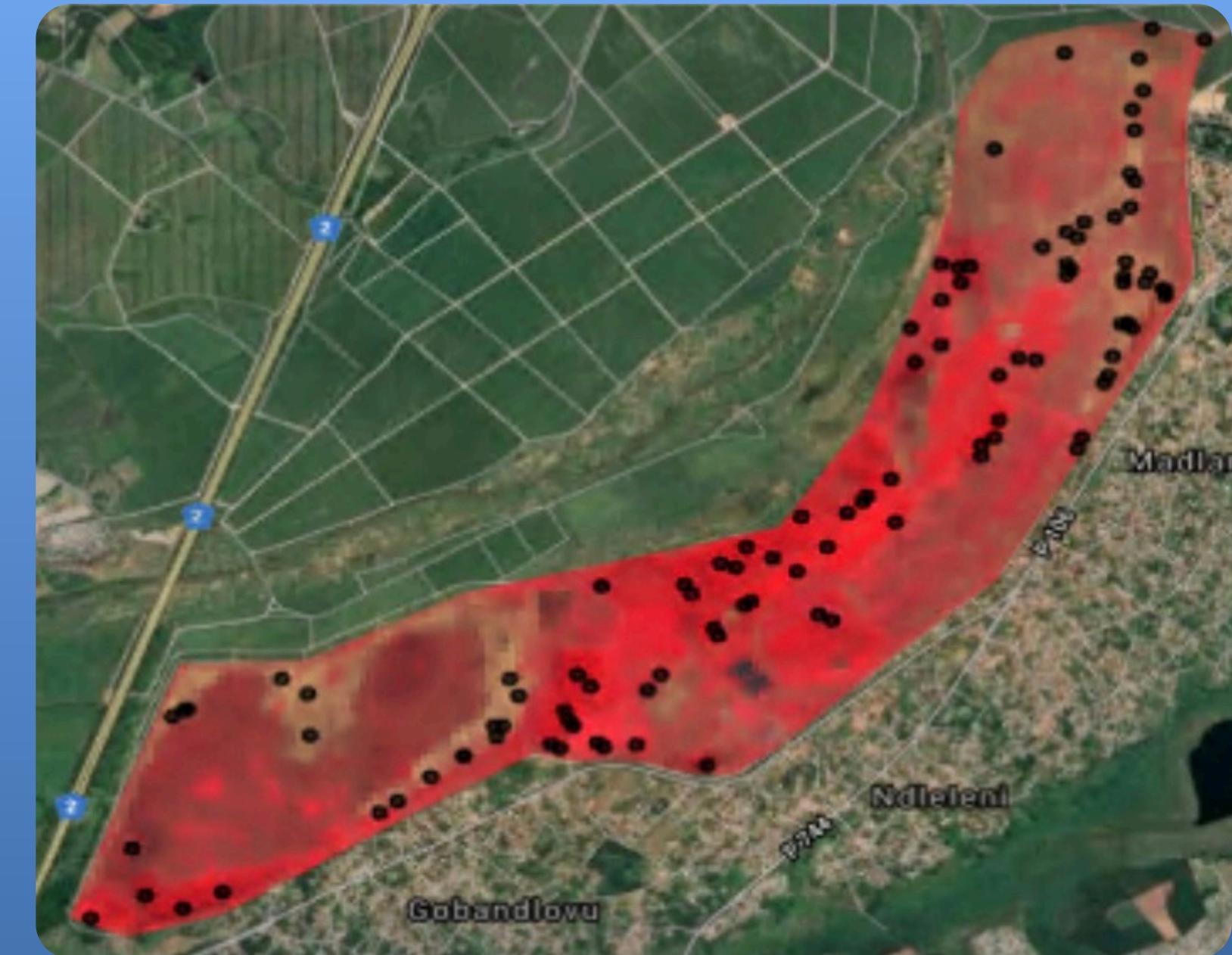
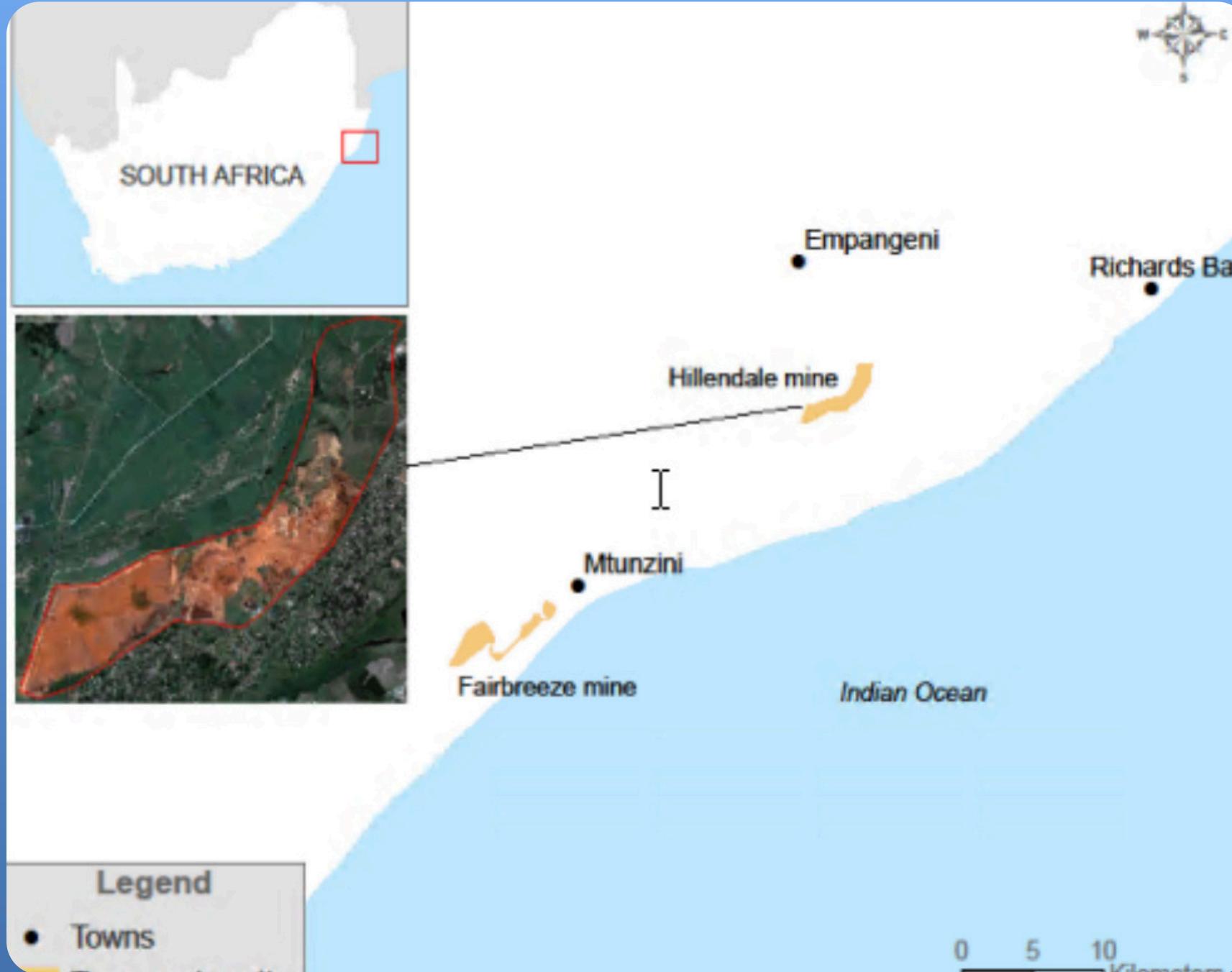
- Reliable and long terms commitment and licensed mines; China and Ukraine based Mineral Separation Plant facilities for final processing
- Our Role: We manage the sourcing, coordinate heavy mineral concentrates shipments, and control its processing and production quality from start to finish



MINING REGIONS: MOYAMBA & BONTHE DISTRICTS (LAWANA VILLAGE, KONGBORA CHIEFDOM)
SIERRA LEONE



MINING REGIONS: HILLENDALE MINE,
SOUTH AFRICA



Quality Control & Testing

Every Batch. Every Detail. Verified.

🧪 Multi-Layer Quality Control

- In-house & external testing in China, Australia and Ukraine
- Independent third-party certification available (ALS, SGS, AHK)

🔍 What We Test For:

- TiO_2 content: 96 – 97%
- Impurities: ZrO_2 , SiO_2 , Fe_2O_3 — max 1%
- Volatiles like P and S – less than 0,01%, C – less than 0,04%, LOI 1000 C – 0,05 – 0,15% max
- Particle Size: 60 – 325 mesh only
- Low radioactivity, moisture, and loss on ignition



CONSISTENCY = TRUST

Because no matter how good your supply is — if you can't guarantee consistency, it's useless. That's why we built a process that doesn't rely on chance.

Our reps oversee production
CoAs provided with every shipment



Product Range

Consistent Supply. Diverse Product Portfolio.

We provide a range of premium-grade industrial mineral products, sourced directly from trusted partners.

Our Key Products:

-  Rutile Sand 95% min / Calcinated rutile 95% min — Sierra Leone
-  Rutile Sand 92% / 95% — South Africa
-  Ilmenite Sand 60% — Sierra Leone
- ● Rutile Flour 92% / 95% — Fine-processed for specific industrial use
- ○ Zircon Flour (325 mesh) — Consistent particle size, high-grade

Available with third-party certification upon request.

Rutile Sand 95% min — Sierra Leone

Item	Guaranteed	Typical
TiO ₂	95 min	95,5
Al ₂ O ₃	0,6 max	0,32
Fe ₂ O ₃	1,5 max	0,65
SiO ₂	1,5 max	0,45
ZrO ₂	1,5 max	0,91
P ₂ O ₅	0,02 max	<0,01
SO ₃	0,03 max	<0,01
Cr ₂ O ₃		0,20
V ₂ O ₅		0,55
CaO		0,01
MgO		0,04
MnO		0,03
Nb ₂ O ₅		0,15
Na ₂ O		0,05
LOI under 1000C	0,1 max	0,05
U + TH	100ppm max	U238:39 ppm or 468,5 Bq/kg Th232:20 ppm or 70,8 Bq/kg
Moisture	0,2 max	0,1

Particle Size	
Sieve Aperture (mesh)	Cumulative residue, %
60	0,15
60-100	48,11
100-120	47,47
200-325	3
-325	0,05

Mineralogical Composition	
Mineral	Content, %
Beta	99,66
Zircon	0,33
Rutile	97,88
Ilmenite	0,33
Silimanite	0,93
Leucoxene	0,22
Quartz	0,34
Bulk Density	2350,0 kg/m ³

Rutile Sand 95% min (Calcined) — Sierra Leone

Item	Guaranteed	Typical
TiO ₂	95 min	95,5
Al ₂ O ₃	0,6 max	0,32
Fe ₂ O ₃	1,5 max	0,65
SiO ₂	1,5 max	0,45
ZrO ₂	1,5 max	0,91
P	0,03 max	0,02
S	0,02 max	0,01
V ₂ O ₅	0,75 max	0,55
Cr ₂ O ₃		0,20
CaO		0,01
MgO		0,04
MnO		0,03
Nb ₂ O ₅	0,5 max	0,15
Na ₂ O		0,05
LOI under 1000C	0,05 max	0,03
U + TH	100 ppm max	U238:39 ppm or 468,5 Bq/kg Th232:20 ppm or 70,8 Bq/kg
Moisture	0,1 max	0,05

Particle Size	
Sieve Aperture (mesh)	Cumulative residue, %
45	0,19
45-60	1,18
60-100	48,11
100-120	47,47
200-325	3
-325	0,05

Mineralogical Composition	
Mineral	Content, %
Beta	99,66
Zircon	0,3
Rutile	97,88
Ilmenite	0,33
Silimanite	0,93
Leucoxene	0,22
Quartz	0,34
Bulk Density	2350,0 kg/m ³

Rutile Sand 95% — South Africa

Item	Guaranteed	Typical
TiO ₂	95 min	95,58
Al ₂ O ₃	1,0 max	0,32
Fe ₂ O ₃	1,5 max	0,49
SiO ₂	1,5 max	0,68
ZrO ₂	1,5 max	1,18
P	0,03 max	0,01
S	0,02 max	<0,01
V ₂ O ₅	1,0 max	0,44
Cr ₂ O ₃		0,12
CaO		0,04
MgO		0,04
MnO		0,02
Nb ₂ O ₅		0,51
Na ₂ O		0,14
LOI under 1000C	0,5 max	0,16
Moisture	0,2 max	0,1

Particle Size	
Sieve Aperture (mesh)	Cumulative residue, %
50	0
50-60	0,32
60-80	5,18
80-100	11,99
100-120	27,71
120-180	49,65
180-200	3,92
200-325	1,81
-325	0,02

Mineralogical Composition	
Mineral	Content, %
Beta	99,66
Zircon	0,3
Rutile	97,88
Ilmenite	0,33
Silimanite	0,93
Leucoxene	0,22
Quartz	0,34
Bulk Density	2350,0 kg/m ³

Rutile Sand 92% — South Africa

Item	Guaranteed	Typical
TiO ₂	92 min	92,15
Al ₂ O ₃	1,0 max	0,74
Fe ₂ O ₃	1,5 max	0,84
SiO ₂	2,5 max	2,31
ZrO ₂	2,0 max	1,21
P ₂ O ₅	0,02 max	<0,01
SO ₃	0,03 max	<0,01
Cr ₂ O ₃		0,14
V ₂ O ₅		0,34
CaO		0,28
MgO		0,14
MnO		0,05
Nb ₂ O ₅		0,45
Na ₂ O		0,04
LOI under 1000C	0,50 max	0,36
U + TH	100ppm max	60ppm
Moisture	0,2 max	0,1

Particle Size		
Sieve Aperture (mesh)	Cumulative residue, %	Cumulative Sieve Residue Typical
30 mesh	0%	0%
50 mesh	2,0% max	<0,5%
60 mesh	5,0% max	<3,0%
100 mesh	30% max	28,43%
200 mesh	95% min.	96,50%

Mineralogical Composition	
Mineral	Content, %
Beta	98,93
Zircon	0,1
Rutile	94,45
Ilmenite	Traces
Leucoxene	4,13
Quartz	1,07
Staurolite	0,06



Ilmenite Sand 60% — Sierra Leone

Item	Guaranteed	Typical
TiO ₂	60% min	60,68
Al ₂ O ₃	5,0 max	1,05
Fe ₂ O ₃	20,0 - 40,0	23,5
Fe total	15,0 - 30,0	25,94
SiO ₂	1,7 max	1,08
ZrO ₂	1,5 max	0,08
P ₂ O ₅	0,02 max	<0,01
SO ₃	0,03 max	0,01
Cr ₂ O ₃	1,2 max	0,22
V ₂ O ₅	0,7 max	0,32
CaO		0,3
MgO	1,0 max	0,97
MnO	2,0 max	0,30
Nb ₂ O ₅	0,5 max	0,04
Moisture	0,2% max	0,1%

Particle Size	
Sieve Aperture (mesh)	Sieve residue, %
45	0
Ori 45-60	4,90
60-80	12,25
80-100	11,19
100-120	15,20
120-200	40,36
200-325	11,74
-325	1,84

Zircon Flour (325 mesh)

Item	Guaranteed	Typical
ZrO ₂ +HfO ₂	65 min	66,0
TiO ₂	0,25 max	0,12
Al ₂ O ₃	2 max	1,38
Fe ₂ O ₃	0,1 max	0,075
P ₂ O ₅		0,10
SiO ₂		30,96
Th+U	320 ppm max	320 ppm
Radioactivity, kBq/Kg	4,0 max	2,8
Moisture		0,10
Average grain size, mm		105
Homogeneity coefficient, %		93
Bulk muss, kg/m ³		2675

Mineral	Content, %	Grain Size, microns	Cumulative retained, %
Zircon	98 - 99	+63	Up to 3
Rutile/Ilmenite	0,1 - 0,3	+40	Up to 10
Monazite	0,02	+20	Up to 25
Kyanite	0,5 - 2,5	+5	Up to 60
Quartz	0,05 - 0,2		

Rutile Flour 92% / 95%

Item	Guaranteed	Typical
TiO ₂	95 min	97,3
Al ₂ O ₃	0,6 max	0,25
Fe ₂ O ₃	1,5 max	0,16
SiO ₂	2,0 max	0,34
ZrO ₂	1,0 max	0,77
P ₂ O ₅	0,02 max	<0,01
SO ₃	0,03 max	<0,01
Cr ₂ O ₃		0,23
V ₂ O ₅		0,63
CaO		0,02
MgO		0,03
MnO		<0,01
Moisture	0,5 max	0,05
U+Th	100 ppm max	70ppm

Item	Guaranteed	Typical
TiO ₂	92 min	92,64
Al ₂ O ₃		0,53
Fe ₂ O ₃		0,83
SiO ₂		3,08
ZrO ₂		1,34
P ₂ O ₅		0,07
SO ₃		<0,01
Cr ₂ O ₃		0,1
V ₂ O ₅		0,28
CaO		0,06
MgO		0,07
MnO		0,03
Moisture	0,5 max	0,07
U+Th	0,5 max	70 ppm

45 microns (325 mesh)	
Sieve aperture (mesh)	Cumulative retained, %
325	Up to 3
450	2-6
635	5-15
2500	40-45

63 microns (200 mesh)	
200 mesh - 5% max sieve residue	
Typically	
<200 mesh - 97% minimum	
<230 mesh - 94%	
<325 mesh - 85%	



**We don't just buy — we build
relationships with every link in the chain**





Warehousing & Logistics

Global Reach. Local Access.

Our warehousing strategy is designed for speed, flexibility, and regional access — because logistics should **never** be the bottleneck.

- 🌐 Warehouse Locations:
 - 🇪🇸 Spain – Zircon storage
 - 🇵🇱 Poland – Rutile products
 - 🇹🇷 Turkey – Rutile, zircon products

📦 Products are stored in optimal conditions, packaged and ready to ship in compliance with local and international regulations.

🏢 Offices: UK, Slovakia, Ukraine, China, Singapore

- 🚚 Our Logistics Services Include:
 - End-to-end freight coordination
 - Customs handling
 - Route optimization
 - Client-specific labeling, packaging & documentation
 - Localized support based on market requirements.

 POLAND WAREHOUSE



 TURKEY WAREHOUSE



Client Support & Flexibility

Service Built Around You



We don't offer "one-size-fits-all." Our operations are tailored to match your specific technical, logistical, and commercial requirements — because real partnerships are flexible.

🤝 What You Can Expect:

- Localized market knowledge — We understand regional requirements and adapt accordingly
- Dedicated account support — Quick communication, consistent follow-through
- Customizable product specs — Grain size, purity, packaging & labeling to match your needs
- Flexible delivery solutions — Warehousing, partial shipments, or direct-to-site delivery

Why Arsenal?

Our product is strong — but our reliability is stronger

- ✓ Global supplier with deep logistics experience
- ✓ Consistent quality — certified, tested, and traceable
- ✓ Flexible, client-driven approach
- ✓ Warehousing in Europe & Turkey for fast delivery
- ✓ Direct access to high-grade material from Sierra Leone & South Africa
- ✓ Transparent, responsive communication



Let's Work Together

Reach out today — let's build something reliable, together.

Whether you're exploring new suppliers or scaling existing operations — Arsenal Minerals is ready to deliver clarity, quality, and consistency.

Let's talk about:

- Your current needs
- Long-term partnership potential
- Sample material or trial shipments
- How we can streamline your supply chain

 Email: sales@arsenalmin.com

 Website: arsenalmin.com

 Offices: UK, Slovakia, Ukraine, Singapore





Thank You

We look forward to the opportunity to work
with you.

Arsenal Minerals Limited — Reliability.
Quality. Global Reach.