

## Corporate Profile

12-143 K

# Our Locations





# Your partner in blast cleaning solutions

## CEO's Message



It is my pleasure to introduce you to Maxworth International Pty Ltd., which to us represents a true reflection of the spirit of human endeavour and aspirations. Headquartered in Australia and with its presence in India, Malaysia and the Philippines, Maxworth commenced operations in the year 2011, with a view to bridging the gap between supply and procurement of fine minerals such as garnet, sillimanite and ilmenite.

As a global supplier of high quality minerals, we have always aimed at being the preferred choice of customers, and strive to be acknowledged as a strong entity in the mineral and metal resources sector. Today, our commitment to excellence in all aspects of supply and procurement, together with our customer-centric approach, has ensured that we are recognised as leading players in the global mineral sector.

We believe that we can create opportunities and share our success with each of our suppliers and distributors, and on this conviction we have built up a strong unified supply network and distribution chain. These strategic alliances serve us well in offering the highest value to our customers. The Maxworth family with its loyal employees and committed stakeholders has been growing from strength to strength, and our customer's faith and confidence in us is what keeps us going.

Our rapid growth has emboldened us to expand our frontiers, and we look forward to increasing our range of products and widening our infrastructure in the days to come. We hope to enjoy your continued support and patronage during this journey.

Dini K. Dominic CEO

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# About Us

## At Maxworth, Our quality speaks for itself

The Maxworth Group is an international minerals and metals trading company. The company commenced operations in April 2011 and has since grown to become one of the leading importers and distributors of industrial minerals in Australia, India, Asia and the Middle East.

Maxworth International specializes in the sourcing, processing and value addition of industrial minerals such as Garnet, Ilmenite, Sillimanite, PS Ball and the sourcing, and processing of ferrous and non-ferrous metals. The company has its own processing and shipping facilities located in Malaysia and in Southern India.

Maxworth is committed to sourcing minerals and metals that are consistent in quality and grade and are delivered on-time – every time. Since 2011, we have built up a strong unified supply network and distribution chain.

The recently opened warehouse and storage facility within the Visakhapatnam Special Economic Zone in Southern India has allowed Maxworth to further reduce delivery times. The facility also allows for the reprocessing of garnet and mineral products to meet the specific requirements of customers.





# Our Vision

Trusted partner in supply of quality garnet.

# Our Mission

A commitment to the sustainable sourcing, recovery and processing of garnet.



# **Board of Directors**



## Mr Bijo Kunnumpurath (Founder Director)

Mr Bijo Kunnumpurath is the Group CEO of Health Careers International which he founded in 2007, and is a Director of Maxworth Minerals. He is the driving force and inspiration behind the vision and activities of Maxworth Minerals.

A Mechanical Engineer by profession, Bijo is a Graduate of the Australian Institute of Company Directors. Armed with extensive project management and business management experience, he is the spearhead behind all programs and activities in the HCI Group and has successfully started a number of in-

ternational businesses. Bijo has gained rich experience in diverse fields by working in India, Brunei, Malaysia and Australia for many years.

Bijo is a member of Rotary International and a leader in his community where he contributes to the development, education and integration of his community members into Australian society.



### Dr. Jacob Thomas (Director)

Dr. Jacob Thomas, an Orthopaedic Surgeon by profession, wears many hats and has experience in many businesses. He has done his Post Graduation in Jawaharlal Nehru Medical College, Ajmer, Rajasthan.

He has been part of the advisory committee of Maxworth Minerals since the company started, and joined as a director in 2015. Blessed with strong interpersonal skills, Dr Jacob has been instrumental in spearheading varied initiatives and causes. With every new project, Dr Jacob brings his amazing nections to the forefront

people skills and connections to the forefront.



### Mr Dini K Dominic (CEO)

Mr Dini Domini K has the distinction of being the very first employee of the MWT Group of companies. A mechanical engineer by profession, he has acquired vast exposure in many fields by working in India, UK and many countries in the Middle East.

Between 2003 and 2012 he gained valuable business insights through work experience in other companies. In the year 2012 he rejoined MWT Education Consultancy, and led the company to new heights as the Managing Director

of the group.

In 2015 he has taken the helm as the CEO of the MWT Group, of which Maxworth Minerals forms a part. A firm believer in the value of continued education, Dini has recently completed his BBA.

As the CEO of Maxworth, Dini provides overall leadership, vision and direction for the organisation and works closely with the Board of Governors in relation to the organisation. He manages and oversees systems and policy implementation in the areas of risk management and quality assurance. He provides business development strategies to grow the commercial aspects of the organisation and he promotes & ensures compliance with legal and statutory obligations and all policies & procedures relevant to the organisation's operations.



# Hierarchy of Group







## Products

Maxworth Minerals is a designated import and export company that offers customers unmatched expertise in all facets of procurement and supply, and a complete end-to-end supply chain solution. We are also the leading producers, processors and exporters of heavy metals and minerals.





At present, Maxworth Minerals has established facilities specializing in minerals such as Garnet, Sillimanite and Ilmenite. A thorough understanding of customer's requirements coupled with a deep emphasis on professionalism and quality control has propelled us to the top niche in this industry in a very short span of time. Our wide supply network and smoothly integrated supply lines have proven an added advantage to help us establish a good distribution network in the country.



### Garnet



Garnet is a semi-precious stone derived from mined Almandite and Andradite deposits. After extraction, it is processed and screened to the grade desired. Its high density and unique physical properties make garnet nature's most efficient, effective and safe abrasive.

### Sillimanite



Sillimanite is a type of aluminium silicate that is polymorphic to both andalusite and kyanite. It is used as a raw material for high alumina refractories, which are extensively used in the Iron and Steel, Petrochemicals, Electrical, Cement, Zinc and Glass Industries.

### Ilmenite



Ilmenite is mostly used in the paints, fabrics, plastics, paper, sunscreen, food and cosmetics industries (as a source of titanium dioxide) . It is used in the steel industry to line blast furnaces, and is also very useful as an abrasive.

### **PS Ball**



PS Ball is an abrasive that is produced by super- cooling molten steel slag. It is suitable for a wide range of applications, and its most common usage is as an abrasive for the surface preparation of steel prior to the application of paint coatings.





## Garnet

Maxworth Minerals is one of the largest suppliers of Garnet Abrasives.

Garnet is a semi-precious stone that is derived from mined Almandite and Andradite mineral deposits. After extraction, it is processed and then screened to the grade desired.



## Applications & Specifications of Garnet

# Al Garñet

At Maxworth, we've named our minerals A1- simply because they are the best in the market! We offer our customers three grades of garnet, based on the end user requirements — A1 Garnet Premium, A1 Garnet Super and A1 Garnet.

The qualities of each grade are outlined in the following table.

Products	Available Grades				
A1 Garnet Premium	20/40 (Grade B)	30/60 (Grade C)	-	80 (Grade E)	120 (Grade F)
A1 Garnet Super	-	30/60 (Grade C)	-	80 (Grade E)	-
A1 Garnet	-	30/60 (Grade C)	50/80 (Grade D)	80 (Grade E)	-

## A1 Garnet Premium Grade #20/40-B:

This is an abrasive that can be utilized for heavy-duty coating removal. This grade has qualities of recyclability and nominal production rates, making it a highly preferred repair-grade abrasives. Surface profile: 75-100 micron.

#### **Specifications:**

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 96.5	97
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-22
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	0.5-0.8
CaO	-	2-4
MgO	-	7-9
LOI	-	0.01-0.05
P <sub>2</sub> O <sub>5</sub>	-	0.1-0.2
Soluble Chloride	-	< 20 ppm

Sieve Analysis			
Mesh (US)	-	Retention (%)	
20	-	0-5	
30	-	10-18	
40	-	80-85	
60	-	0-2	
Physical Analysis			
Specific Gravity	-	4.1	
Hardness	-	7.5 - 8.00 (Moh Scale)	
Bulk Density	-	2.40 gm/cm <sup>3</sup>	
Conductivity	-	< 10 Micron Siemens/Metre	



#### **Applications:**

Sand Blasting Abrasive media

- Oil and Gas Industry
- Ship repairing Industry
- Constructions

- Surface Preparation
  - Pipeline coating removal
  - Graffiti removal
  - Paint removal
  - Rust Removal

### A1 Garnet Premium Grade #30/60-C:

This grade is the world's most popular Garnet Blasting Abrasive Grade and is perfect for various types of blasting applications that include, removing existing coating, rust and other contamination. It has proven to be an ideal grade for superior surface preparation for new steel prior to tank coating, for pipelines-both internal and external, fabricated steel and structures, and so on. Also widely used for effective removal of mill scale, it is widely used as a Slurry- Blast Grade and High Pressure Hydro-Blasting Abrasive. Surface Profile: 50-75 microns.

#### **Specifications:**

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 96.5	97
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-22
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	0.5-0.8
CaO	-	2-4
MgO	-	7-9
LOI	-	0.01-0.05
P <sub>2</sub> O <sub>5</sub>	-	0.1-0.2
Soluble Chloride	-	< 20 ppm

Sieve Analysis				
Mesh (US)	-	Retention (%)		
30	-	0-2		
40	-	7-13		
50	-	65-70		
60	-	15-18		
70	-	8-12		
80	-	2-8		
-80	-	traces		
Physical Analysis				
Specific Gravity	-	4.1		
Hardness	-	7.5 - 8.00 (Moh Scale)		
Bulk Density	-	2.40 gm/cm3		
Conductivity	-	< 10 Micron Sie- mens/Metre		

#### **Applications:**

Sand Blasting Abrasive media

- Oil and Gas Industry
- Ship repairing Industry
- Constructions
- Surface Preparation
- Pipeline coating removal
- Graffiti removal
- Paint removal
- Rust Removal



## A1 Garnet Super Grade #30/60-C:

#### Specifications:

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 96.5	97
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-22
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	0.5-0.8
CaO	-	2-4
MgO	-	7-9
LOI	-	0.01-0.05
P <sub>2</sub> O <sub>5</sub>	-	0.1-0.2
Soluble Chloride	-	< 20 ppm

Sieve Analysis				
Mesh (US)	-	Retention (%)		
30	-	3-4		
40	-	17-19		
50	-	42-44		
60	-	14-16		
70	-	8-10		
80	-	5-7		
100		3-5		
120		1-2		
-120	-	traces		
Physical Analysis				
Specific Gravity	-	4.1		
Hardness	-	7.5 - 8.00 (Moh Scale)		
Bulk Density	-	2.40 gm/cm3		
Conductivity	-	< 10 Micron Sie- mens/Metre		

### A1 Garnet Grade #30/60-C:

#### Specifications:

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 96.5	97
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-22
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	0.5-0.8
CaO	-	2-4
MgO	-	7-9
LOI	-	0.01-0.05
P <sub>2</sub> O <sub>5</sub>	-	0.1-0.2
Soluble Chloride	-	< 20 ppm

Sieve Analysis				
Mesh (US)	-	Retention (%)		
30	-	3-4		
40	-	17-19		
50	-	42-44		
60	-	14-16		
70	-	8-10		
80	-	5-7		
100		3-5		
120		1-2		
-120	-	traces		
Physical Analysis				
Specific Gravity	-	4.1		
Hardness	-	7.5 - 8.00 (Moh Scale)		
Bulk Density	-	2.40 gm/cm3		
Conductivity	-	< 10 Micron Sie- mens/Metre		

### A1 Garnet Grade #50/80-D:

The 80 mesh grade possesses highest efficiency on new steel/mill scale due to highest grain count per weight/volume and this makes it an ideal choice for the surface preparation of Aluminium and non-ferrous surfaces.

#### Specifications:

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 90	92
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-23
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	1-1.5
CaO	-	1-1.5
MgO	-	6-8
ZrO <sub>2</sub>	-	Traces
Soluble Chloride	-	< 20 ppm

Sieve Analysis			
Mesh (US)	-	Retention (%)	
+50	-	4-6	
+60	-	17-20	
+70	-	24-27	
+80	-	24-27	
+100	-	15-18	
+120	-	5-10	
-120		3-5	
Physical Analysis			
Specific Gravity	-	4.1	
Hardness	-	7.5 - 8.00 (Moh Scale)	
Bulk Density	-	2.40 gm/cm3	
Conductivity	-	< 10 Micron Sie- mens/Metre	

#### Applications: Waterjet Cutting media

- Glass Cutting
- Lapping
- Wood Finishing
- Water Filter Media

### A1 Garnet Premium Grade #80-E:

The 80 mesh grade possesses highest efficiency on new steel/mill scale due to highest grain count per weight/volume and this makes it an ideal choice for the surface preparation of Aluminium and non-ferrous surfaces.

#### Specifications:

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 90	92
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-23
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	1-1.5
CaO	-	1-1.5
MgO	-	6-8
ZrO <sub>2</sub>	-	Traces
Soluble Chloride	-	< 20 ppm

Sieve Analysis		
Mesh (US)	-	Retention (%)
-60		0-5
+70		40-48
+80		20-30
+100		18-23
-100		0-3
Physical Analysis		
Specific Gravity	-	4.1
Hardness	-	7.5 - 8.00 (Moh Scale)
Bulk Density	-	2.40 gm/cm3
Conductivity	-	< 10 Micron Sie- mens/Metre



#### **Applications:**

#### Waterjet Cutting media

- Glass Cutting
- Lapping
- Wood Finishing
- Water Filter Media

## Finishing and Product Manufacturing Media

- Sand Paper Making
- Plate Glass Finishing
- Optical Glass Finishing
- Coated abrasives
- Clothing Industry

### A1 Garnet Super Grade #80-E:

#### **Specifications:**

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 90	92
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-23
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	1-1.5
CaO	-	1-1.5
MgO	-	6-8
ZrO <sub>2</sub>	-	Traces
Soluble Chloride	-	< 20 ppm

App	lications:	

#### Waterjet Cutting media

- Glass Cutting
- Lapping
- Wood Finishing
- Water Filter Media

Sieve Analysis		
Mesh (US)	-	Retention (%)
-60		0-3
+70		50-65
+80		25-30
+100		20-23
-100		5-10
Physical Analysis		
Specific Gravity	-	4.1
Hardness	-	7.5 - 8.00 (Moh Scale)
Bulk Density	-	2.40 gm/cm3
Conductivity	-	< 10 Micron Sie- mens/Metre

## Finishing and Product Manufacturing Media

- Sand Paper Making
- Plate Glass Finishing
- Optical Glass Finishing
- Coated abrasives
- Clothing Industry



### A1 Garnet Premium Grade #120-F:

This grade is utilized for the preparation of surfaces such as stainless steel and Aluminium. Where minimum surface roughness is desired, this abrasive medium can be used on many pliable and synthetic products too.

#### **Specifications:**

Mineralogy	Guaranteed (%)	Typical (%)
Garnet	Min - 90	92
Ch	emical Analys	sis
Parameters	-	Typical (%)
SiO <sub>2</sub>	-	36-38
Al <sub>2</sub> O <sub>3</sub>	-	20-23
Fe <sub>2</sub> O <sub>3</sub>	-	31-33
TiO <sub>2</sub>	-	1-1.5
CaO	-	1-1.5
MgO	-	6-8
ZrO <sub>2</sub>	-	Traces
Soluble Chloride	-	< 20 ppm

Sieve Analysis		
Mesh (US)	-	Retention (%)
-100		30-38
+120		41-45
-120		20-32
Physical Analysis		
Specific Gravity	-	4.1
Hardness	-	7.5 - 8.00 (Moh Scale)
Bulk Density	-	2.40 gm/cm3
Conductivity	-	< 10 Micron Sie- mens/Metre

#### **Applications:**

#### Finishing and Product Manufacturing Media

- Sand Paper Making
- Plate Glass Finishing
- Optical Glass Finishing
- Coated abrasives
- Clothing Industry

Note: Garnet is a natural product and as such slight variations in the chemical analysis and size distribution should be expected. Special contracts covering guarantees other than those specified can be negotiated.

#### Packaging

- 25 kgs. PE bags (max. 1000 kgs/ 1MT.)
- 1000 kgs. In 1MT Jumbo bag





## Sillimanite

Widely use all over the world for manufacture of Refractory Bricks, Iron Foundries, Spark Plugs, Glass, and Chemicals, Sillimanite is one of three Alumino-Silicate Polymorphs with the chemical formula  $Al_2SiO_5$ . Fibrolite, a common variety of Sillimanite, is so named because the Mineral appears like a bunch of fibers twisted together. The fibrous and traditional forms of Sillimanite are both commonly found in Metamorphosed Sedimentary Rocks.

At Maxworth Minerals, we supply lumps and processed powder in bulk quantity as per Consumer specifications and requirements, mostly for use in Refractory Brick Manufacturing and Foundries.



#### **Specifications:**

Chemical Analysis		
Parameters	Guaranteed (%)	Typical (%)
Al <sub>2</sub> O <sub>3</sub>	Min-57.0	57-58
SiO <sub>2</sub>	-	37-39
Fe <sub>2</sub> O <sub>3</sub>	-	0.5-0.8
TiO <sub>2</sub>	-	0.2-0.6
CaO	-	0.1-0.2
MgO	-	0.05-0.1
LOI	-	0.5-0.7
Na <sub>2</sub> O	-	0.25-0.5
K₂O	-	0.2-0.4
5	Sieve Analysis	
Mesh (US)	Retention (%)	Cumulative Retention (%)
30	Nil	-
40	0.21	0.21
60	2.03	2.24
80	20.12	22.36
100	33.09	55.45
140	41.35	96.8
200	2.3	99.1
-200	0.9	100
Phy	Physical Properties	
Lustre	Sub-Vitreous	s, Greasy, Silky
Diaphaneity (Transparency)	Transparent,	Translucent
Colour	Colorless, wh brown, greer	nite, yellow, n, gray.
Comment	Ideally colorle and stains ar other colors.	ess, inclusions e responsible for

Streak	white	
Hardness (Mohs)	6 1/2 - 7 1/2	
Tenacity	Brittle	
Cleavage	Perfect {010} perfect	
Fracture	Irregular/Uneven	
Comment	Usually fibrous due to break- age along fiber boundaries.	
Density (mea- sured)	3.23 - 3.27 g/cm <sup>3</sup>	
Density (calculat- ed)	3.24 g/cm <sup>3</sup>	
Crystallography		
Crystal System	Orthorhombic	
Class (H-M)	mmm (2/m 2/m 2/m) - Dipy- ramidal	
Cell Parameters	a = 7.484A, b = 7.672A, c = 5.770A	
Ratio	a:b:c = 0.975 : 1 : 0.752	
Unit Cell Volume	V 331.30 A <sup>3</sup> (Calculated from Unit Cell)	
Z	4	
Morphology	Usually fibrous in wavy bundles. Rarely in well de- fined rectangular to square cross-sectioned prisms.	

#### Application and Uses

#### Sillimanite is used in

- Refractory products
- Sillimanite in Electrical Components
- Sillimanite in Ceramics

### A1 Premium Sillimanite Grade #200-Sil: Specifications:

Chemical Analysis		
Parameters	Guaranteed (%)	Typical (%)
Al <sub>2</sub> O <sub>3</sub>	Min-57.0	57-58 (96%Sillm)
SiO <sub>2</sub>	-	37-39
Fe <sub>2</sub> O <sub>3</sub>	-	0.5-0.8
TiO <sub>2</sub>	-	0.2-0.6
CaO	-	0.1-0.2
MgO	-	0.05-0.1
LOI	-	0.5-0.7

#### 0.25-0.5 Na<sub>2</sub>O \_ K<sub>2</sub>O 0.2-0.4 -Sieve Analysis Cumulative Retention Mesh (US) Retention (%) (%) +200 0.5-2 2 Max -200 98-100 100 Note: Sillimanite is a natural product and as such slight variations in the chemical analysis and size distribution should be expected.

#### Packaging

- 25 kgs. PE bags (max. 1000 kgs/ 1MT.)
- 1000 kgs. In 1MT Jumbo bags.





## Ilmenite

Ilmenite is an iron titanium oxide which is the principal ore of titanium. The chemical formula of ilmenite is FeTiO3. Black or dark gray in colour, it has a metallic luster and is usually weakly magnetic. While the mineral itself is actually not magnetic, it is often intergrown with magnetite which is strongly magnetic.

Ilmenite and magnetite are opaque minerals and can be differentiated from each other by the crystal structure. Magnetite is an isometric mineral and forms double pyramids (octahedrons) just like those of diamond. These octahedrons are often worn off in sand but magnetite is rounded and still roughly isometric.

Ilmenite grains tend to be tabular and the crystal structure of ilmenite is identical to hematite. It is also compositionally close to hematite ; the only difference between them being that one Fe atom (in hematite) is replaced by titanium atom (in ilmenite).

At Maxworth Minerals, we supply Ilmenite in bulk quantity as per customer end requirements, mostly for use in the paints, fabrics, plastics, paper, sunscreen, food and cosmetics industries (as a source of titanium dioxide.)



#### **Specifications:**

Physical Properties		
Lustre	Metallic, Sub-Metallic	
Diaphaneity (Transparency)	Opaque	
Colour	Iron black or black	
Streak	Black to reddish brown	
Hardness (Mohs)	5 - 6	
Hardness (Vick- ers)	VHN100=566 - 698 kg/mm <sup>2</sup>	
Tenacity	Brittle	
Cleavage	None Observed	
Parting	On {0001}, {1011} due to twinning	
Fracture	Conchoidal, Sub-Conchoidal	
Density (mea- sured)	4.68 - 4.76 g/cm <sup>3</sup>	
Density (calculat- ed)	4.789 g/cm <sup>3</sup>	
С	rystallography	
Crystal System	Trigonal	
Class (H-M)	3 - Rhombohedral	
Space Group	R3	
Cell Parameters	a = 5.08854(7), c = 14.0924(3)	
Ratio	a:c = 1 : 2.769	
Unit Cell Volume	V 316.01 <sup>3</sup> (Calculated from Unit Cell)	
Z	6	
Morphology	Commonly thick tabular {0001}. Sometimes in thin laminae; also acute rhombo- hedral. Compact massive; as embedded grains.	
Twinning	1. On {0001}; 2. On {1011}, lamellar.	

#### **Application and Uses**

Titanium minerals have among the highest refractive indices of any known mineral.

Ilmenite is used :

- As a furnace lining in the steel industry and also as a blasting medium. After eliminating the iron particles, Ilmenite can be further processed to produce Synthetic Rutile, which can be further developed to make Titanium Dioxide.
- Ilmenite grains are often altered to leucoxene which is a mixture of several oxide minerals. It looks like a very fine-grained light-colored or brownish coating on ilmenite grains. It is used as a protective coating for welding electrodes, in production of pigments, as filler in paints to increase whiteness and brilliance, and as a source of titanium for the production of titanium metals.
- Ilmenite is used as a source of Titanium dioxide (TiO2), which is a non-toxic pigment with High Refractive Index or Opacity. It possesses high thermal stability and chemical inertness. TiO2 has extensive application as a premier pigment used extensively in the paint industry. About 90% of the titanium mineral produced in the world is used in the manufacture of white titanium dioxide pigment.
- TiO2 is also used in cosmetics, pharmaceuticals and even added to foodstuffs such as flour, icing sugar and sweets as well as toothpaste to improve their brightness.
- Titanium dioxide is used in the manufacture of many sunscreen lotions and creams because of it non-toxicity and UV absorption properties.
- Titanium metal is also increasingly being used in making sports equipment, jewellery and for advanced engineering applications.
- Ilmenite can withstand extreme temperatures, and is therefore used in the steel industry to line blast furnaces.
- Ilmenite's hardness also makes it very useful as an abrasive.

HCI Group





## **PS** Balls

Maxworth International Pty Ltd is a specialized manufacturer and supplier of blast abrasives, which are personalized for the needs of diverse customers. Our focus is on high quality protective coating systems, and with our rich experience of over a decade we have achieved high cost efficiency and product stability.

Our newly introduced abrasive material PS Ball is produced by super- cooling molten steel slag. It is an exciting and versatile product which is highly stable, hard and very tough. Its superior characteristics make it suitable for a wide range of applications and its most common usage is as an abrasive for the surface preparation of steel prior to the application of paint coatings.

As PS Ball does not contain Free Silica, it is non toxic and in compliance with environmental regulations the world over. Compared to sand or copper slag, it has superior compressive strength, hardness and anti-weathering properties.



#### **Specifications:**

Chemical Properties		
Conductivity	<100 µS/cm (µmhos/cm) or <10mS/m according to ASTM D 4940 Standard.	
Dust Level	<low (="" )="" 1="" 8502-3<="" iso="" rating="" td=""></low>	
Dust Level	<low (="" )="" 1="" 8502-3<="" iso="" rating="" td=""></low>	
Radioactivity	Undetected) Ra - 226 Gamma - Spectrometry < 10 Bq/kg.	
Chloride Content	< 10 ppm (ISO 8502-10)	
Ç	Specifications	
ISO standard	In compliance with ISO 11126-6 Non-metallic blast-cleaning abrasives Part 6 : Iron Furnace Slag	
Free silica	< 1 %	
Dust emission	Very low	
Recyclability	yes - Depending on job con- ditions	
Waste Disposal	Depending on contamination and local regulations	
Grain Size (mm)	0-0.6, 0.6-1.0, 1.0-2.0, 0.6- 2.0, 2.0-5.0;	
Packing	PP Jumbo Bag	

#### Application

- PS Balls are suitable for use as an abrasive blasting material in place of garnet or copper slagc
- As it is heavier than sand , it can be used as a counter balance in mixing materials
- Used as casting sand for the casting on nonferrous metals
- Used as filtration media during recycling of industrial waste water
- Due to its nonslip properties, can be applied as covering on the road
- As it has the property of coherence with asphalt or concrete, PS Balls can be used as efficient Repair or Reinforcement Material
- PS Balls can be used successfully as paving for concrete and asphalt roads
- Due to its hardness and spherical shape, PS Balls can be used as a suitable permeable material in waste (food or garbage) dumping areas
- For hardening of the ground of seashore or riverside, PS Balls can be used in place of the traditional sand for pumping water
- Used in the field of ship industries and oil refinery plant maintenance for short blasting purposes.





## Why Maxworth?

- Maxworth's business model is based on quality, sustainability and integrity.
- We guarantee that we always supply minerals and metals of superior quality. Stringent quality checks at every stage weed out the material that is below par, ensuring that only the best grade passes all the tests.
- By closely controlling the logistics, we ensure that we always have adequate supplies in our stock, so that we can supply you the material on time- every time.
- We maintain the stock of products with the specifications required by each of the market segments in which we operate.





- Our new warehouse and storage facility within the Visakhapatnam Special Economic Zone in Southern India has allowed Maxworth to further improve timeto-market.
- We have a widespread and closely knit supply and distribution network, with a significant presence in Australia, Philippines, Malaysia and India.
- Our staff is well trained and experienced in all areas of sales, processing, documentation and customer relations.
- We strive to maintain personal relationships with every one of our customers, and pay close attention to their needs by providing value-added services.



# Maxworth at a glance













Notes:



Staying on Top of all your mineral requirements

> With our far-reaching distributor network and prompt deliveries



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