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TECHNICAL DATA SHEET
PACKAGE

Ferro Silicon 15% & 45%

Global Supplier of Metal Powders to the Mining,
Recycling and Welding Industries

TDS-ANM-001

Atomised Ferro Silicon 15%

Dense Media Separation — Mining & Scrap Recycling

TDS-ANM-002

Milled Ferro Silicon 15%

Dense Media Separation — Mining & Scrap Recycling

TDS-ANM-003

Atomised Ferro Silicon 45%

Welding Industry — Electrode Coating

**April
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DATE

3 TDS
DOCUMENTS

Rev. 01
REVISION

**Istanbul ·
Luanda**
OFFICES

Atomised Ferro Silicon 15%

Application: Dense Media Separation — Mining & Scrap Recycling

1 PRODUCT DESCRIPTION

Atomised Ferro Silicon 15% is produced using modern atomising technology that ensures excellent sphericity and consistent particle morphology. The superior oxide coating on particles provides outstanding corrosion resistance compared to conventionally water-atomised ferro silicons, achieving density faster, aiding stability and keeping particles in suspension longer.

2 KEY FEATURES

- Modern atomising technology ensures excellent sphericity
- Superior oxide coating provides outstanding corrosion resistance vs. conventionally water-atomised product
- Achieves medium density faster; aids stability and particles stay in suspension longer
- 30+ years of experience in the atomising sector
- Available in multiple grade cuts: Cyclone 60, Coarse Grade and Fine Grade

3 CHEMICAL & PHYSICAL SPECIFICATIONS

CHEMICAL COMPOSITION

PROPERTY	SPECIFICATION
Iron (Fe)	> 80%
Silicon (Si)	14 - 16%
Manganese (Mn)	< 0.80%
Chromium (Cr)	< 0.60%
Copper (Cu)	< 0.50%
Phosphorus (P)	< 0.10%
Sulphur (S)	< 0.05%

PHYSICAL PROPERTIES

PROPERTY	SPECIFICATION
Apparent Density	3.3 - 4.1 g/cc
Pycnometric Density	6.7 - 7.1 g/cc
Non-Magnetics	0.5% Max
Magnetic Susceptibility	58% Min
Particle Morphology	Spherical (atomised)

4 SIZE DISTRIBUTION (CUMULATIVE % PASSING)

CYCLONE 60		COARSE GRADE		FINE GRADE	
SIEVE SIZE	% PASSING	SIEVE SIZE	% PASSING	SIEVE SIZE	% PASSING
-212 µm	100%	-212 µm	96-98%	-212 µm	97-100%
-150 µm	99-100%	-150 µm	87-93%	-150 µm	90-96%
-106 µm	96-100%	-106 µm	72-82%	-106 µm	74-88%
-75 µm	82-94%	-75 µm	51-67%	-75 µm	60-75%
-45 µm	68-78%	-45 µm	32-42%	-45 µm	42-50%
-20 µm	32-42%			-20 µm	15-25%

5 PACKAGING & STORAGE

Available in 1,000 kg bulk bags (FIBC). Other packaging options available upon request.

Disclaimer: The information in this TDS is based on current knowledge. The user must verify suitability for the intended application. Anamine reserves the right to modify specifications without prior notice.

Milled Ferro Silicon 15%

Application: Dense Media Separation — Mining & Scrap Recycling

1 PRODUCT DESCRIPTION

Milled Ferro Silicon 15% is produced using a state-of-the-art ball mill with an air-swept classification system. The product contains Titanium (Ti) and Aluminium (Al) additions which enhance corrosion resistance and improve performance in dense media circuits. Available in multiple density grades to suit a variety of dense media applications.

2 KEY FEATURES

- State-of-the-art ball mill with air-swept classification system
- Ti and Al additions for enhanced corrosion resistance
- Multiple density grades (270D, 150D, 100D, 65D) available
- Various packaging options to ensure suitable storage in the most extreme environments
- Consistent particle size distribution for reliable dense media performance

3 CHEMICAL & PHYSICAL SPECIFICATIONS

CHEMICAL COMPOSITION

PROPERTY	SPECIFICATION
Iron (Fe)	> 76%
Silicon (Si)	13 - 16%
Titanium (Ti)	< 5%
Aluminium (Al)	< 3%

PHYSICAL PROPERTIES

PROPERTY	SPECIFICATION
Apparent Density	3.3 - 4.1 g/cc
Pycnometric Density	6.7 - 7.1 g/cc
Non-Magnetics	0.5% Max
Magnetic Susceptibility	58% Min
Particle Morphology	Angular (milled)

4 SIZE DISTRIBUTION (CUMULATIVE % PASSING)

270D		150D		100D		65D	
SIEVE	% PASS.	SIEVE	% PASS.	SIEVE	% PASS.	SIEVE	% PASS.
+212 µm	0%	+212 µm	0-1%	+212 µm	0-1%	+212 µm	0-1%
-212+150 µm	0%	-212+150 µm	0-1%	-212+150 µm	0-1%	-212+150 µm	0-3%
-150+106 µm	0-1%	-150+106 µm	0-2%	-150+106 µm	1-4%	-150+106 µm	4-8%
-106+75 µm	0-3%	-106+75 µm	2-6%	-106+75 µm	5-10%	-106+75 µm	9-17%
-75+45 µm	7-11%	-75+45 µm	13-21%	-75+45 µm	20-28%	-75+45 µm	24-32%
-45 µm	85-93%	-45 µm	73-81%	-45 µm	61-69%	-45 µm	47-55%
+20 µm	38-48%	+20 µm	50-60%	+20 µm	65-75%	+20 µm	75-85%

5 PACKAGING & STORAGE

Available in 1,000 kg bulk bags (FIBC). Other packaging options available upon request.

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Atomised Ferro Silicon 45%

Application: Welding Industry — Electrode Coating

1 PRODUCT DESCRIPTION

Atomised Ferro Silicon 45% is primarily used in the Welding Industry for the coatings on stick electrodes. The product is manufactured to stringent quality standards with controlled reactivity, ensuring consistent and reliable performance in electrode coating applications.

2 KEY FEATURES

- Primarily used for coatings on stick (SMAW) electrodes
- Controlled reactivity: < 15 ml H₂ / 90 minutes
- Manufactured to stringent quality standards
- Consistent particle size distribution for reliable coating application

3 CHEMICAL & PHYSICAL SPECIFICATIONS

CHEMICAL COMPOSITION

PROPERTY	SPECIFICATION
Silicon (Si)	44 - 47%
Iron (Fe)	Remainder
Carbon (C)	< 0.10%
Sulphur (S)	< 0.01%
Phosphorus (P)	< 0.04%
Manganese (Mn)	< 0.50%
Aluminium (Al)	~ 1%
Titanium (Ti)	~ 0.30%
Chromium (Cr)	< 0.30%

PHYSICAL PROPERTIES

PROPERTY	SPECIFICATION
Reactivity	< 15 ml H ₂ / 90 min
Particle Morphology	Spherical (atomised)

4 SIZE DISTRIBUTION (CUMULATIVE % PASSING)

STANDARD	
SIEVE SIZE	% PASSING
+425 µm	0%
+355 µm	0%
+180 µm	10-35%
+90 µm	45-80%
+45 µm	75-95%

5 PACKAGING & STORAGE

Available in 25 kg bags. Bulk packaging available upon request.

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CONTACT INFORMATION

Get in Touch

For technical enquiries, product specifications, pricing or supply chain collaboration, please contact us using the details below.

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PRODUCTS COVERED IN THIS PACKAGE

DOCUMENT NO.	PRODUCT	APPLICATION	REVISION
TDS-ANM-001	Atomised Ferro Silicon 15%	Dense Media Separation — Mining & Scrap Recycling	Rev. 01 · April 2026
TDS-ANM-002	Milled Ferro Silicon 15%	Dense Media Separation — Mining & Scrap Recycling	Rev. 01 · April 2026
TDS-ANM-003	Atomised Ferro Silicon 45%	Welding Industry — Electrode Coating	Rev. 01 · April 2026