TECHNICAL DATA SHEET (TDS) — MEDIUM & LOW CARBON FERRO MANGANESE (MC / LC FeMn)

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Product	Medium & Low Carbon Ferro Manganese (MC / LC FeMn)
Issued By	ATABAŞ GLOBAL DIŞ TİCARET ANONİM ŞİRKETİ
Companion Document	Safety Data Sheet (MSDS) ATB-SDS-FEALLOY-MCLCFEMN-2026-001

1. PRODUCT IDENTIFICATION

Product Name	Medium & Low Carbon Ferro Manganese
Abbreviation	MC / LC FeMn
Grades	MC FeMn 80 LC FeMn 80
HS Code (indicative)	7202.19
Prepared with Reference to	ISO 5446 ASTM A99 GB/T 3795
Product Description	Refined manganese–iron alloys with reduced carbon content, produced by silicothermic refining; supplied as crushed and screened lumps.

All chemical values are expressed as percentage by mass (% w/w). Country of origin, quantity, packing and the final guaranteed values for each shipment are stated in the Sales Contract, the Certificate of Origin and the Certificate of Quality issued at loading.

2. CHEMICAL SPECIFICATION

Parameter (% by mass)	**MC FeMn 80**	**LC FeMn 80**
Manganese (Mn)	75.0 – 82.0	80.0 – 85.0
Carbon (C)	1.5 max	0.5 max
Silicon (Si)	1.5 max	1.5 max
Phosphorus (P)	0.20 max	0.20 max
Sulphur (S)	0.02 max	0.02 max
Iron (Fe)	Balance	Balance
Size (mm)	10 – 50	10 – 50
Size conformity	90% min	90% min

3. PHYSICAL CHARACTERISTICS AND SIZING

Appearance	Metallic grey to silver-grey lumps
Physical State	Solid
Standard Size (mm)	MC FeMn 80: 10 – 50 LC FeMn 80: 10 – 50
Alternative Sizes (mm)	10 – 100; 3 – 10
Size Conformity	90% min within the specified range, determined by sieve analysis at loading

4. PACKAGING AND MARKING

- Packing: jumbo bags.
- Container loading: 20' containers, approximately 20 – 25 MT net per container depending on density and packing.
- Marking on each package: product name, grade, lot / heat number, net and gross weight, package number and contract reference. Neutral packing is available.

5. APPLICATIONS

- Manganese addition where low carbon is required: flat products and deep-drawing steels.
- Low-carbon and 200-series stainless steels.
- Welding electrodes and fluxes.

6. SAMPLING, ANALYSIS AND INSPECTION

- Sampling and sample preparation prepared with reference to ISO 3713 and ISO 4552; sieve analysis with reference to ISO 4551.
- Carbon and sulphur by combustion–infrared analysis; principal and residual elements by ICP-OES, XRF or wet chemical methods.
- Independent inspection of quality, weight and packing at loading by an internationally recognised surveyor (SGS, Intertek, Bureau Veritas or equivalent, as agreed in the Sales Contract).
- The Certificate of Quality issued by the appointed surveyor at loading is final and binding for quality and size, unless otherwise agreed in the Sales Contract.

7. SHIPPING DOCUMENTS

Document	Issued By
Commercial Invoice	ATABAŞ
Packing List	ATABAŞ
Certificate of Quality / Analysis	Independent surveyor at loading
Certificate of Weight	Independent surveyor at loading
Certificate of Origin	Chamber of Commerce
Bill of Lading / CMR	Carrier
Safety Data Sheet (MSDS)	ATABAŞ

8. STORAGE AND HANDLING

- Store in dry, covered and well-ventilated areas on hard standing; keep packages closed and protected from rain, condensation and standing water.
- Additions to molten metal shall be dry and preheated where practicable; moist material in contact with molten metal can cause violent steam explosions.
- Avoid dust generation; segregate from acids, alkalis and oxidising agents; keep grades and lots separated to prevent mixing.
- Detailed safety information is given in Safety Data Sheet ATB-SDS-FEALLOY-MCLCFEMN-2026-001.

9. SANCTIONS AND TRADE COMPLIANCE

ATABAŞ GLOBAL DIŞ TİCARET ANONİM ŞİRKETİ conducts its business in full compliance with the economic and trade sanctions regimes administered by the United States (OFAC), the European Union, the United Kingdom (OFSI) and the United Nations Security Council. ATABAŞ does not work with sanctioned countries, sanctioned companies, sanctioned individuals or sanctioned vessels, and does not supply, source, finance or transport goods in breach of these regimes.

All counterparties are subject to Know-Your-Customer and sanctions screening before contract signature and throughout performance. ATABAŞ reserves the right to suspend or terminate any transaction which may expose it to sanctions risk.

10. GENERAL

The values in this document are specification limits for the grades listed. The final guaranteed values, quantity, sizing and packing for each shipment are those stated in the Sales Contract and in the Certificate of Quality issued at loading. This document does not constitute a warranty of fitness for any particular purpose; the buyer is responsible for determining the suitability of the product for its own process.

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Approved By	Hakan ATABAŞ, Founder & CEO
Date	26 October 2026
Signature & Company Stamp	