



TECHNICAL DATA SHEET

for

SIMAT artificial aggregate from ferrosilicomanganese slag
INTEGRATED MANAGEMENT SYSTEM
(STN EN ISO 9001:2015, STN EN ISO 14001:2015 a STN EN ISO 45001:2018)

Number: TL-005-EN

Date of issue:

24 February 2025

Revision No.: 0

Revision date: -



1. DESCRIPTION

SIMAT artificial aggregate from ferrosilicomanganese slag is generated as a by-product during the production of ferrosilicomanganese alloy (FeSiMn). It is an air-cooled FeSiMn slag cast into slag boxes (pits). The material is produced in size fractions of 0–4 mm, 0–16 mm, 4–16 mm, 16–32 mm, and 32–63 mm, which are processed using crushing and screening equipment, as well as in an unprocessed, unclassified fraction of 0–300 mm (not processed by crushing or screening). It is an inert material – non-wettable and insoluble in water – with a characteristic grey-green colour.

2. USE

- as protective layers in drainage systems and utility infrastructure,
- as backfill material for coarse backfilling and leveling
- as spreading material for winter road maintenance,
- for land reclamation and terrain modification,
- for construction of embankment and forest roads
- in the cement industry for clinker production,
- as material for mechanical surface treatment by sandblasting,
- for landscaping, embankments, backfilling, and encasement.

3. CERTIFICATES/APPROVALS

- Integrated operation permit of OFZ, a.s., Široká plant No. 3574/2007/Jur/770010203 dated 5 May 2007 as amended (Consent that the substance is considered a by-product with the trade name "SIMAT - artificial aggregate from ferrosiliconmanganese slag" and not waste).
- Certificate of production management system issued by the inspection certification body QUALIFORM SLOVAKIA, s.r.o., Pasienková 9 D, 82106 Bratislava.
- Certificate of conformity of the production management system issued by the inspection certification body QUALIFORM SLOVAKIA, s.r.o., Pasienková 9 D, 82106 Bratislava. (EN 12620:2002 + A1: 2008, EN 13242:2002+A1:2007).
- OFZ, a.s. is certified under quality management systems STN EN ISO 9001:2015 and environmental system STN EN ISO 14 001:2015.

OFZ, a. s., Široká 381, 027 41 Oravský Podzámok, Slovakia

Telephone

+421 43 5804 111

Fax

+421 43 5804 320

Bank Account

SK4311000000002621706224

Reg. No.

36 389 030

VAT No.

SK 2020131476

e-mail

ofz@ofz.sk

Registration: Business Register, District Court of Žilina, Section: Sa, Insert No.: 10228/L



TECHNICAL DATA SHEET

for

SIMAT artificial aggregate from ferrosilicomanganese slag
INTEGRATED MANAGEMENT SYSTEM
(STN EN ISO 9001:2015, STN EN ISO 14001:2015 a STN EN ISO 45001:2018)

Number: TL-005-EN

Date of issue:

24 February 2025

Revision No.: 0

Revision date: -

4. PHYSICAL AND CHEMICAL PARAMETERS

Particle size (mm): 0/4, 0/16, 4/16, 16/32, 32/63, 0/300

SIMAT artificial aggregate from ferrosilicomanganese slag – crushed gravel 0/16

SIMAT artificial aggregate from ferrosilicomanganese slag – fine aggregate 0/4

SIMAT artificial aggregate from ferrosilicomanganese slag – coarse aggregate 4/16

SIMAT artificial aggregate from ferrosilicomanganese slag – coarse aggregate 16/32

SIMAT artificial aggregate from ferrosilicomanganese slag – coarse aggregate 32/63

SIMAT artificial aggregate from ferrosilicomanganese slag – ungraded 0/300

Qualitative and quality parameters to be met:

Parameter	Value
Silicon dioxide (SiO ₂)	30– 50% w/w
Calcium oxide (CaO)	10 – 30% w/w
Aluminium oxide (Al ₂ O ₃)	5 – 25% w/w
Manganese oxide (MnO)	5 – 20% w/w
Activity concentration index	≤ 1
Bulk Density	1500 ± 200 kg/m ³

The product is non-wettable and insoluble in water.

5. QUALITY CONTROL

The qualitative properties of the product are defined by applicable STN and EN standards as well as internal manufacturing specifications. Quality control is carried out in accordance with Guideline OS-004-SK on final inspection and is ensured by the Quality Management Department. Analytical testing of parameters is performed at least once per month during production in the company's in-house operational laboratory (excluding the activity concentration index and bulk density), and once per year in full scope by an accredited laboratory. Records of analytical control are retained for a minimum of five years.

Registration number	Name of the Work Procedure
PP-009-SK	Incoming, In-Process and Dispatch Quality Control
PP-012-SK	Material Analysis by X-ray Fluorescence (XRF) Method
PP-013-SK	Determination of Carbon and Sulfur Content Using ELTRA CS 800 Analyzer
PP-014-SK	Quality Control of By-products
PP-016-SK	Methods for Determining Physical and Chemical Parameters of Materials
PP-017-SK	Material Analysis by Photometric Method and Atomic Absorption Spectrometry (AAS)
PP-088-SK	Material Analysis by Thermogravimetric Analysis (TGA)

During the final quality control, a QUALITY CERTIFICATE is issued, which includes the following information: Company name, Material name, Chemical composition, Batch class, Delivery number Gross and net delivery weight, Purchase contract number, Stamp, Date and signature of final inspection.

OFZ, a. s., Široká 381, 027 41 Oravský Podzámok, Slovakia

Telephone

+421 43 5804 111

Fax

+421 43 5804 320

Bank Account

SK4311000000002621706224

Reg. No.

36 389 030

VAT No.

SK 2020131476

e-mail

ofz@ofz.sk

Registration: Business Register, District Court of Žilina, Section: Sa, Insert No.: 10228/L



TECHNICAL DATA SHEET

for

SIMAT artificial aggregate from ferrosilicomanganese slag
INTEGRATED MANAGEMENT SYSTEM
(STN EN ISO 9001:2015, STN EN ISO 14001:2015 a STN EN ISO 45001:2018)

Number: TL-005-EN

Date of issue:

24 February 2025

Revision No.: 0

Revision date: -

The delivery note shall include: Manufacturer's name, Place of manufacture, Type of material - product name, fraction – particle size, Delivery method, Delivery note number, Quantity [kg, t].

The packaging shall include: Manufacturer's name, Place of manufacture, Type of material - product name, fraction – particle size, Quantity [kg, t], Date of manufacture.

6. PACKING

Packing: Bulk

Form: Pieces – according to the required particle size class

Weight: According to permitted vehicle load capacity

7. TRANSPORT

Bulk, transported in vehicles designed for the transport of loose bulk materials.

8. STORAGE

Stored on stabilized surfaces in uncovered stockpiles, sorted by particle size fractions. During dispatch, the material is loaded from the stockpiles onto the transport vehicle using appropriate handling equipment.

9. SAFETY DATA

Safety information is provided in the Material Safety Data Sheet (MSDS) issued by the manufacturer under registration number KBU-005-EN issued on 10 March 2025.

The current revision of the SDS is available upon request from the manufacturer or for download at: **www.ofz.sk**.

10. OTHER

Information is available at <https://siroka.ofz.company/sk/simat.html>

Replaces document: **TL-OFZ-05/19 issued on 1 June 2021**

Prepared by: Róbert Zrnčík, Head of Ferroalloy Production - signed

Approved by: Milan Kelbel, Director of Production Services - signed

OFZ, a. s., Široká 381, 027 41 Oravský Podzámok, Slovakia

Telephone

+421 43 5804 111

Fax

+421 43 5804 320

Bank Account

SK4311000000002621706224

Reg. No.

36 389 030

VAT No.

SK 2020131476

e-mail

ofz@ofz.sk

Registration: Business Register, District Court of Žilina, Section: Sa, Insert No.: 10228/L