

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

(Not to be reproduced without the permission of BIS or used as an Indian Standard)

भारतीय मानक मसौदा

**मृदा सुधार के लिए कृषि चूना सामग्री: भाग 2
लाइमस्टोन और डोलोमाइट - विशिष्टि**

(आइ एस 5409 (भाग 2) का दूसरा पुनरीक्षण)

Draft Indian Standard

**AGRICULTURAL LIMING MATERIALS AS SOIL AMENDMENTS: PART 2
LIMESTONE AND DOLOMITE – SPECIFICATION**

[Second Revision of IS 5409 (Part 2)]

ICS No. 65.080

Soil Quality and Fertilizers Sectional
Committee, FAD 07

Last Date of Comments: 8 August 2024

FOREWORD

(Formal clauses would be added later)

Limestone and dolomite apart from being used in cement, steel, foundry, chemical and glass industries, are also used as soil amendments for correcting soil acidity.

This standard was published in 1969 and the liming materials such as limestone, dolomite, basic slag, sea shell, pressmud, by-product, calcium carbonate and by-product hydrated lime were included. Since the neutralizing value and physical characteristics of liming materials vary to a great extent, it was considered desirable to prepare separate specifications for different liming materials used as soil amendments. Hence, in the first revision issued in 1985, this standard was divided into two parts. Hydrated lime and burnt lime were covered under Part 1. This part (Part 2) covers specification for limestone and dolomite.

In this revision, the standard has been brought out in the latest style and format of the Indian Standards and references to Indian Standards have been updated. It also incorporates one amendment issued to the previous version of this standard.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1 SCOPE

This standard prescribes requirements and the methods of sampling and test for limestone and dolomite to be used as soil amendments.

2 REFERENCES

The standards listed below contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below:

<i>IS No.</i>	<i>Title</i>
IS 997 : 1973	Specification for limestone and dolomite for glass industry (<i>first revision</i>)
IS 1070 : 2023	Reagent grade water – Specification (<i>fourth revision</i>)
IS 2109 : 1982	Methods of sampling dolomite, limestone and other allied materials (<i>first revision</i>)
IS 5409 (Part 1) : 202X	Specification for agricultural liming materials as soil amendments: Part 1 Hydrated lime and burnt lime (<i>second revision</i>) [<i>Under preparation Doc: FAD 07(25166)</i>]

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 5409 (Part 1) shall apply.

4 REQUIREMENTS

4.1 Fineness

90 percent by mass of the material shall pass through 2 mm sieve and 50 percent by mass of the material shall pass through 250 µm sieve, when tested by the method prescribed in IS 997.

4.2 The material shall also comply with the requirements specified in Table 1.

Table 1 Requirements for Limestone and Dolomite as Soil Amendments

(Clause 4.2)

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
(1)	(2)	(3)	(4)
i)	Neutralizing value as expressed as calcium carbonate equivalent (CCE), percent, <i>Min</i>	70	Annex A of IS 5409 (Part 1)
ii)	Total lime and magnesia (as CaO + MgO), percent by mass, <i>Min</i>	50	IS 997
iii)	Moisture content, percent by mass, <i>Max</i>	5.0	IS 997

6 PACKING

The material shall be supplied in bulk or in packages as agreed to between the purchaser and the supplier.

7 MARKING

7.1 When supplied in packages, each package shall securely be closed and marked with the following information:

- a) Name and grade of the material;
- b) Quantity of the material in the package;
- c) Neutralizing value of the material;
- d) Supplier's name and recognized trade-mark, if any;
- e) Lot number to enable the consignment to be traced back to the record; and
- f) Any other information required under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977*.

7.2 When supplied in bulk, a good sized metallic label bearing the above information shall be conspicuously displayed on the bulk carrier and also placed inside.

7.3 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

8 SAMPLING

The procedure for drawing representative samples of the material and the criteria for finding out the conformity of the material to the requirements, of this specification shall be in accordance with IS 2109.

9 TESTS

Tests shall be carried out by the appropriate methods referred to in col (4) of Table 1.

10 QUALITY OF REAGENTS

Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in tests.

NOTE - 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the result of analysis.