

SRI LANKA STANDARD 916 : PART 3 : 1991

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Reaffirmed

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SPECIFICATION FOR
RUBBER COMPOUNDING INGREDIENTS
PART 3 - SULFUR

SRI LANKA STANDARDS INSTITUTION

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SLS 916:1991

Gr. 4

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SRI LANKA STANDARDS INSTITUTION

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SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD
SPECIFICATION FOR RUBBER COMPOUNDING INGREDIENTS
PART 3 : SULFUR

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 1991-11-14, after the draft, finalized by the Drafting Committee on Rubber Compounding Ingredients, had been approved by the Chemicals Divisional Committee.

Clauses 3.2 and 4.1 of this specification call for agreement between the purchaser and the supplier.

This part is one of a series of standard specifications for rubber compounding ingredients. The first and second parts of this specification which have been issued cover specifications for carbon black and zinc oxide respectively.

This specification covers only the rhombic sulfur (soluble) widely used in the rubber industry as a vulcanizing agent.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated expressing the result of a test or an analysis shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this specification.

In the preparation of this specification, the assistance obtained from the publications of the International Organization for Standardization, the American Society for Testing and Materials and the British Standards Institution is gratefully acknowledged.

1 SCOPE

1.1 This specification prescribes the requirements and methods of sampling and test for sulfur used as a rubber compounding ingredient.

1.2 This specification covers only rhombic sulfur.

2 REFERENCES

- ISO 3705 Sulphur for industrial use
Determination of arsenic content.
- CS 102 Presentation of numerical values.
- SLS 428 Random sampling methods.
- SLS 899 Methods of test for rubber compounding ingredients
Part 3 Sulfur*

* Under preparation

3 REQUIREMENTS

3.1 Appearance

The material shall be free from visible impurities.

3.2 Sulfur content

Sulfur content shall be as agreed to between the purchaser and the supplier.

3.3 Other requirements

The material shall conform to the requirements given in Table 1 when tested by the methods prescribed in Column 4 of the table.

TABLE 1 - Other requirements for sulfur

Sl. No. (1)	Characteristic (2)	Requirement (3)	Method of test (4)
i)	Ash content, per cent by mass, max.	0.1	SLS* 899:Part 3 Section 1
ii)	Acidity, per cent by mass, as H ₂ SO ₄ , max.	0.02	SLS* 899:Part 3 Section 2
iii)	Heat loss, per cent by mass, max.	0.2	SLS* 899:Part 3 Section 3
iv)	Residue on sieve, per cent by mass		SLS* 899:Part 3 Section 4
	a) 150 um	0.00	
	b) 75 um	5 to 15	
v)	Matter insoluble in carbon-disulfide, per cent by mass, max.	1.0	SLS* 899:Part 3 Section 5
vii)	Copper, mg/kg, max.	10	SLS* 899:Part 3 Section 6
viii)	Manganese, mg/kg, max.	50	SLS* 899:Part 3 Section 6
x)	Arsenic, mg/kg, max.	5	ISO 3705

4 PACKAGING AND MARKING

4.1 Packaging

The material shall be packed in bags as agreed to between the purchaser and the supplier.

* Under preparation

4.2 Marking

Each bag shall be marked or labelled legibly and indelibly with the following;

- a) Name of the product;
- b) Name and address of the manufacturer and/or the supplier, including the country of origin;
- c) Registered trade mark; if any;
- d) Batch or code number; and
- e) Net mass, in kilogrammes.

** Under preparation*

Attention is drawn to certification marking facilities offered by the Sri Lanka Standards Institution. See the inside back cover of the standard.

5 SAMPLING

5.1 Lot

In any consignment all bags of sulfur belonging to one batch of manufacture or supply shall constitute a lot.

5.2 Scale of sampling

5.2.1 Samples shall be tested from each lot for ascertaining its conformity to the requirements of this specification.

5.2.2 The number of bags to be selected from a lot shall be in accordance with Table 2.

TABLE 2 - Scale of sampling

Number of bags in the lot (1)	Number of bags to be selected (2)
Up to 150	3
151 to 1 500	5
1 501 to 15 000	10
15 001 and above	15

5.2.3 The bags shall be selected at random. In order to ensure randomness of selection tables of random numbers as given in SLS 428 shall be used.

5.3 Preparation of composite sample

A sufficient quantity of sulfur shall be drawn from the geometric centre of the bag selected as in 5.2 using a suitable sampling tube or an appropriate instrument. The material thus obtained shall be mixed together and reduced to form the composite sample of required size by using coning and quartering method. The composite sample thus prepared shall be transferred into an airtight container.

5.4 Number of tests

5.4.1 Each bag selected as in 5.2 shall be inspected for packaging and marking requirements.

NOTE

This may be carried out at the place of sampling.

5.4.2 The composite sample prepared as in 5.3 shall be tested for the requirements given in 3.3.

6 METHODS OF TEST

6.1 Tests shall be carried out as prescribed in SLS 899 : Part 3* and ISO 3705.

7 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied.

7.1 Each bag inspected as in 5.4.1 satisfies the packaging and marking requirements.

7.2 The composite sample tested as in 5.4.2 satisfies the relevant requirements.

* Under preparation

SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI which includes surveillance inspection of the factory, testing of both factory and market samples.

Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.

