

SRI LANKA STANDARD 952 : 1992

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**SPECIFICATION FOR
RUBBER FLOOR MATS
(GENERAL PURPOSE)**

SRI LANKA STANDARDS INSTITUTION

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SLS 952 : 1992

Gr. 4

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SRI LANKA STANDARDS INSTITUTION
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This standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD
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FOREWORD

This Standard was finalized by the Sectoral Committee on Rubber and Rubber Products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1992-03-26.

The rubber floor mats specified in this specification are intended to be used as a general purpose product for domestic use and for vehicles. Provision has been made in this specification for the colour, design, size and shape of the product to be as agreed to between the purchaser and the supplier.

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 derived from the publications of the International Organization for Standardization, Standards and Industrial Research Institute of Malaysia and the Society of Automotive Engineering is gratefully acknowledged.

1 SCOPE

This specification prescribes the requirements and methods of sampling and test for rubber floor mats used for general purposes.

2 REFERENCES

- ISO 815 Rubber vulcanized or thermoplastic
Determination of compression set at ambient, elevated or low temperatures.
- CS 102 Presentation of numerical values.
- SLS 297 Methods of testing vulcanized rubber
 - Part 2 : Tensile stress - strain properties.
 - Part 3 : Tear strength.
 - Part 4 : Hardness.
 - Part 5 : Accelerated ageing tests.
- SLS 428 Random sampling methods.

3 WORKMANSHIP

3.1 The mat shall be free from cracks, bloom, objectionable odour and shall have clearly trimmed edges.

3.2 The design and colour of the mat shall be as agreed to between the manufacturer and the purchaser.

4 REQUIREMENTS

4.1 Dimensions

4.1.1 The size and the shape of the mat shall be as agreed to between the manufacturer and the purchaser.

4.1.2 The thickness of the mat shall be not less than 3.0 mm when measured in accordance with the method given in Appendix A.

4.2 Physical properties

The mat shall comply with the requirements given in Table 1 when tested by the methods given in Column 5.

TABLE 1 - Physical properties of rubber floor mats

Sl. No.	Characteristic	Requirement		Method of test
		Before ageing	Allowable change *After ageing	
(1)	(2)	(3)	(4)	(5)
(i)	Tensile strength, MPa, min.	10	+ 0 per cent -20 per cent	SLS 297 : Part 2:1974
(ii)	Elongation at break, per cent, min.	250	+ 0 per cent -25 per cent	SLS 297 : Part 2:1974
(iii)	Hardness (IRHD)	50 to 70	+7 -0	SLS 297 : Part 4:1975
(iv)	Tear resistance, kN/m, min.	53	+ 0 per cent -25 per cent	SLS 297 : Part 3:1974

* Ageing shall be carried out in accordance with the method given in SLS 297 : Part 5 : 1976.

4.3 Compression set

The compression set of the mat shall not exceed 40 per cent (as change in thickness) when tested in accordance with the method given in ISO 815 : 1991.

4.4 Shrinkage

The mat shall show no deterioration or surface bloom when tested in accordance with the method given in Appendix B.

5 MARKING

The mat shall be marked or labelled legibly and indelibly with the following;

- a) Name and address of the manufacturer including the country of origin;
- b) Brand name/trade mark, if any; and
- c) Batch or code number;

NOTE

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

6 SAMPLING

6.1 Lot

In any consignment all rubber floor mats of same size and shape belonging to one batch of supply or manufacture shall constitute a lot.

6.2 Scale of sampling

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

6.2.2 The number of mats to be selected from a lot shall be in accordance with Column 2 of Table 2.

TABLE 2 - Scale of sampling

Number of mats in a lot (1)	Number of mats to be selected (2)	Sub sample size (3)
up to 500	10	2
501 to 1 200	12	3
1 201 to 3 200	14	3
3 201 to 10 000	16	4
10 001 and above	20	5

6.2.3 The mats shall be drawn at random. In order to ensure randomness of selection, tables of random numbers as given in SLS 428 shall be used.

6.3 Number of tests

6.3.1 Each mat selected as in 6.2.2 shall be inspected for marking requirements.

6.3.2 Each mat selected as in 6.2.2 shall be measured for dimensions.

6.3.3 A sub sample of size as given in Column 3 of Table 2 shall be selected from the mats selected as in 6.2.2. Each mat of the sub-sample shall be tested for physical properties.

6.3.4 One mat selected as in 6.2.2 shall be tested for compression set and shrinkage.

7 METHODS OF TEST

Tests shall be carried out in accordance with the methods given in ISO 815 : 1991, SLS 297 Part 2, part 3, part 4, and part 5 and Appendices A and B of this specification.

8 CRITERIA FOR CONFORMITY

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

8.1 Each mat inspected as in 6.3.1 satisfies marking requirements.

8.2 Each mat tested as in 6.3.2 satisfies dimensional requirements.

8.3 Each mat tested as in 6.3.3 satisfies relevant requirements.

8.4 The mat tested as in 6.3.4 satisfies relevant requirements.

APPENDIX A
MEASUREMENT OF THICKNESS

A.1 APPARATUS

Dial micrometer gauge, having an accuracy of 0.1 mm.

A.2 PROCEDURE

Measure the thickness at four scattered points, at depression as shown in Figure 1, avoiding the edges. Calculate the average of four readings.

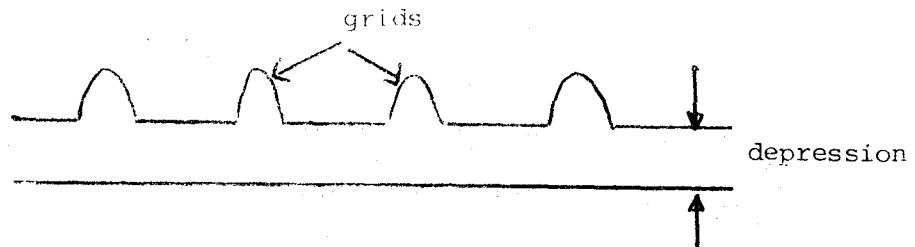


FIGURE 1 - Measurement of thickness

APPENDIX B
SHRINKAGE TEST

B.1 PROCEDURE

Immerse three test pieces of 150 mm x 150 mm in water at 60 °C for 24 hours.

Dry the test pieces at 70 ± 2°C for 24 hours in an oven.

Measure the change in dimensions and observe the surface.

Shrinkage in dimensions should be less than one per cent. Surface of the mat should be free from any deteriorations or surface bloom.

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.



SRI LANKA STANDARDS INSTITUTION

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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.

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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.

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