# SRI LANKA STANDARD 515: 2018 UDC 665.637.3

# SPECIFICATION FOR MASONRY CEMENT (SECOND REVISION)

SRI LANKA STANDARDS INSTITUTION

### Sri Lanka Standard SPECIFICATION FOR MASONRY CEMENT (SECOND REVISION)

SLS 515: 2018 (incorporating Corrigendum No. 1) (Attached AMD 542)

Gr.9

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SRI LANKA.

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

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#### SRI LANKA STANDARD SPECIFICATION FOR MASONRY CEMENT (SECOND REVISION)

#### **FOREWORD**

This standard was approved by the Sectoral Committee on Building & Construction Materials and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2018-07-13.

This Sri Lanka Standard was first published in 1981 and subsequently revised in 2003. This is the second revision. It incorporates the experience gained and brings the standard in line with the present practices followed internationally in production and testing of masonry cement. This revision introduces only air entraining type of masonry cement of strength class 22.5 and the test methods referred are SLS EN and SLS ISO test methods.

Masonry cement is characterized by certain physical properties such as slow setting, high workability and high water retentivity which make it specially suitable for unreinforced masonry work.

This specification covers the requirements for masonry cement intended for use in masonry mortars for bonding brick, stone and concrete block and for plastering. Since masonry cement is produced specifically for the above applications, its application for concrete, reinforced masonry, flooring, and other purposes is deprecated.

Further guidelines for usage of this cement with respect to other cements in Sri Lanka (See Appendix C) is included to satisfy a pressing need of the cement users.

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 method or observation, shall be rounded off in accordance with **SLS 102**. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.

In the preparation of this standard the assistance derived from the publications of the European Committee for Standardization (CEN) and International Organization for Standardization (ISO) is gratefully acknowledged.

#### 1 SCOPE

This Sri Lanka Standard Specification for masonry cement (MC) specifies the requirements for composition and manufacture, for physical, mechanical and chemical properties, and for packaging, marking and delivery.

It covers only air entraining type of masonry cement of strength class 22.5.

#### 2 REFERENCES

SLS 102	Presentation of numerical values
SLS 107	Ordinary Portland cement
SLS 428	Random sampling methods
SLS 552	Building lime
SLS 682	Hydrated lime
SLS 1247	Blended hydraulic cement
SLS 1253	Portland limestone cement
SLS EN 196-6	Testing cement-Determination of fineness
SLS EN 413-2	Masonry cement-test methods
SLS EN 12878	Specifications and test methods: Pigments for colouring of building
	materials based on cement and/or lime.
SLS ISO 679	Methods of testing cements – Determination of strengths
SLS ISO 9597	Cement - Test methods - Determination of setting time and soundness
SLS ISO 29581-1	Cement - Test methods - Analysis by wet chemistry
SLS ISO 29581-2	Cement - Test methods - Chemical analysis by X-ray fluorescence

#### 3 **DEFINITIONS**

For the purpose of this standard, the following definitions shall apply:

- **3.1 additives**: Constituents other than main constituents, minor additional constituents or calcium sulphate which are added to improve the manufacture or the properties of the cement, such as grinding aids, pigments or pack set inhibitors.
- **3.2 cement:** An inorganic finely ground hydraulic binder which, when mixed with water, form a paste which sets and harden by means of hydration reactions and processes and which, after hardening, retails its strength and stability even under water.
- **3.3 composite sample:** Homogeneous mix of spot samples taken:
  - a) At different points; or
  - b) At different times

from a supply of cement in the bulk or bag form obtained by thoroughly mixing the combined spot samples and if necessary, reducing the size of the resulting mix.

- **3.4 consignment**: Quantity of cement delivered at a given time by a single manufacturer, factory, depot or dispatching center. It may consist of one or more lots.
- **3.5 increment**: Quantity of cement taken in a single operation of the sampling equipment used.

- **3.6 laboratory sample**: Sample prepared by thoroughly mixing and if necessary reducing from a large sample (spot or composite sample) and intended for use by laboratories undertaking the tests.
- **3.7 lot**: All the packages of cement or quantity of bulk cement belonging to one batch of manufacture or supply, in any consignment or part of a consignment.
- **3.8** manufacturer: The establishment responsible for the quality of cement packed under the brand name of that establishment and shall include any of the following categories:
- a) Cement manufactured and packed in Sri Lanka;
- b) Cement imported in bulk form and packed in Sri Lanka; or
- c) Cement imported in any other form under a Sri Lankan brand name.
- **3.9 masonry cement**: finely powdered hydraulic binder which relies essentially upon the presence of Portland cement clinker to develop strength. When mixed with sand and water only and without the addition of further materials it produces a workable mortar suitable for use in rendering, plastering and masonry work.
- **3.10 packer/distributor:** The establishment responsible for the quality of cement packed and/or distributed in Sri Lanka.
- **3.11 per cent (m/m)**: Mass of a constituent expressed as a percentage of the total mass of the constituents.
- **3.12 sample:** Quantity of cement taken at random, or in accordance with the specified sampling plan, from a large quantity (silo, stock of bags, wagons, trucks, etc.) or from a fixed lot, relating to the intended tests. A sample may consist of one or more increments.
- **3.13 sample for retest:** Sample which is to be kept for possible subsequent test in the event of the results from tests carried out on laboratory samples being in doubt or dispute.
- **3.14 spot samples:** Samples taken within a short period of time and at a fixed point from within a large quantity, relating to the intended tests. It can be obtained by combining one or more immediately consecutive increments.

#### 4 CONSTITUENTS AND COMPOSITION

Masonry cement shall comprise of Portland cement clinker, inorganic constituents and where appropriate additive(s) as given in Table 1. Calcium sulphate is added in small quantities to the other constituents of masonry cement during its manufacture to control setting.

The inorganic constituents of masonry cements conforming to **SLS 515** shall be materials selected from:

Natural mineral materials;

Mineral materials used for or derived from the clinker production process;

Hydrated and/or hydraulic building limes conforming to SLS 552 or SLS 682;

Constituents specified in SLS 107;

Inorganic pigments (except those containing carbon black) conforming to **SLS EN 12878** 

**NOTE**: Carbon black has a detrimental effect upon the air entrainment.

Additives shall not promote corrosion of embedded metal such as reinforcement and wall ties or impair the properties, including behaviour in fire, of the mortar made from the masonry cement. Organic pigments are not permitted.

**TABLE 1 – Composition of masonry cement** 

Notation	Content % by mass			
	Portland cement clinker	Additives		
MC 22.5	$\geq$ 40	≤ 1 <sup>a</sup>		
<sup>a</sup> The quantity of organic additives on a dry basis shall not exceed 0.5 % by mass of the				

masonry cement

The manufacturing process and its control shall ensure that the composition of masonry cement is kept within the limits fixed in this standard. Masonry cements consist ultimately of individual small grains of different materials and are statistically homogeneous in composition resulting from quality assured production and material handling processes.

A high degree of uniformity in all masonry cement properties shall be obtained through mass production processes, in particular, adequate grinding and homogenization. Qualified and skilled personnel and the facilities to test, evaluate and adjust product quality are indispensable for producing masonry cement in accordance with this Sri Lankan Standard.

#### 5 PHYSICAL, MECHANICAL AND CHEMICAL REQUIREMENTS

#### 5.1 Physical requirements

#### 5.1.1 *Fineness (sieve residue)*

The residue on a 90  $\mu$ m sieve shall be not more than 15% by mass when determined in accordance with **SLS EN 196-6**.

#### **5.1.2** *Initial setting time*

The initial setting time shall be not less than 60 min when determined in accordance with **SLS ISO 9597**.

#### **5.1.3** *Final setting time*

Final setting time shall conform to the requirements specified in Table 2, when determined in accordance with SLS EN 413-2.

When referring to SLS EN 413-2, SLS ISO 9597 shall be used wherever EN 196-3 is referred.

**TABLE 2 – Requirement for final setting time** 

<b>Initial setting time</b>	Final setting time requirement	Test method
< 6h	No requirement	-
≥ 6 h	< 15 h	SLS EN 413-2

#### **5.1.4** *Soundness*

The expansion shall not be more than 10 mm when determined in accordance with **SLS ISO 9597**.

#### **5.1.5** *Fresh mortar requirements*

Air content and water retention properties of fresh mortar shall be measured in accordance with either of the two methods specified in **SLS EN 413-2**, using plunger apparatus as the reference method or using the flow table test as the alternative method.

When referring to SLS EN 413-2, SLS ISO 679 shall be used wherever EN 196-1 is referred and SLS 552 shall be used wherever EN 459-2 is referred.

The test results shall meet the requirements in Table 3.

**TABLE 3 – Fresh mortar requirements** 

Notation	Air content % by volume	Water retention % by mass
MC 22.5	$\geq$ 8 and $\leq$ 22	≥ 80

**NOTE:** An air-entraining agent is incorporated into masonry cements to improve their workability and durability. An upper limit is set for air content to maintain good bond strength to masonry units. The water retention limits is specified for masonry cement to provide a performance suitable for use with high suction masonry units.

### 5.2 Mechanical requirements

The compressive strength when determined in accordance with **SLS ISO 679** shall conform to the requirements given in Table **4**.

**TABLE 4 – Compressive strength requirements** 

Notation	7 day strength N/mm <sup>2</sup>	28 day strength N/mm <sup>2</sup>	
MC 22.5	≥ 10	≥ 22.5	

#### 5.3 Chemical requirements

Sulphate content and Chloride content of the masonry cement shall conform to the requirements given in Table 5 when determined in accordance with either the analysis by wet chemistry described in **SLS ISO 29581-1** or analytical methods utilizing X-ray fluorescence (XRF) given in **SLS ISO 29581-2**. In the case of dispute, unless otherwise agreed by all parties, only the test methods described in **SLS ISO 29581-1** shall be used.

(XRF) given in **SLS ISO 29581-2**. In the case of dispute, unless otherwise agreed by all parties, only the test methods described in **SLS ISO 29581-1** shall be used.

**TABLE 5 – Chemical requirements** 

Notation	Property	Value
MC 22.5	Sulphate content	≤ 3.5
	C 22.5 Chloride content	≤ 0.10

#### 8 MARKING

- **8.1** Masonry cement manufactured in compliance with this standard shall be marked on the bag legibly and indelibly with the particulars as given in (a) to (f). When supplied in bulk, manufacturer's certificate, delivery note or invoice shall also provide the following information:
- a) Name and address of the manufacturer (see **3.8**);
- b) Name and address of the packer and distributor, where relevant (see **3.9**);
- c) Generic name of the product in Sinhala, Tamil and English and notation;

that is : පෙදරේරු සිමෙන්ති

மேற்பூச்சுக்கான சீமெந்து

**Masonry Cement** 

- d) The week of manufacture and the date of packaging;
- e) Net mass of the contents in kg if packed in bag or in tonne (1000 kg) if supplied in bulk; and
- f) Best before date (as declared by the manufacturer).

#### **NOTES:**

- **1**. Attention is drawn to the product certification marking facilities offered by the Sri Lanka Standards Institution. See the inside back cover of this standard.
- **2.** For the "best before" date to be valid, cement should be delivered, stored and used as specified in Appendix  $\mathbf{B}$ .
- **8.2** In the case of the bagged cement the size of the letters used for (c) shall be not less than 12 mm in height.
- **8.3** In the case of the bagged cement brand name, SLS mark (if applicable) and generic name shall be displayed on the front side of the bag. Information in Figure 1 should be displayed on the rear side of the bag.

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**Masonry Cement** 

Notation

The name and address of the manufacturer, packer and the distributor



The week of manufacture and the date of packaging

Net mass in kg

Best before

Guidelines on usage of this cement are given in Appendix C of SLS 515

FIGURE 1 - Format for labelling the rear side of the cement bag

#### 9 DELIVERY AND PACKAGING

The cement shall be supplied in bulk, or packed in bags with sufficient strength and constructed to prevent damage or deterioration of cement, during normal handling.

Any container used for bulk supply shall have an airtight fully enclosed body robust enough to prevent spillage of cement, and a special facility for dustless discharge such as air slide, pneumatic discharger or spiral conveyor.

When cement is supplied in bag form, the minimum net mass of each bag shall be 50.0 kg. The net mass of the bag of cement shall be determined by its gross mass and the mass of package. The nominal mass of the empty bag shall be marked to the nearest one gramme on the package, where facilities exist for such marking. If mass of an empty bag is not displayed on the bag, mass should be determined by weighing 10 empty bags used for the same batch. These empty bags should be supplied by the manufacturer (see 3.8) or packer/distributor (see 3.9).

The bags of cement which are not in good condition, due to causes such as moisture patches, torn bags, burst stitches, spilling cement or exudation of cement dust, shall be rejected.

#### 8 MANUFACTURER'S CERTIFICATE

The manufacturer/packer/distributor shall be satisfied that the cement at the time of its delivery, complies with the requirements of this standard. In case of imported cement, time of delivery means the time of delivery to a port in Sri Lanka.

The manufacturer/packer/distributor on request shall forward a certificate to this effect to the purchaser or his representative. The certificate shall include the results of tests on samples of cement relating to the material delivered.

Test results relevant to physical, mechanical and chemical requirements shall be provided.

#### 9 INDEPENDENT TESTS

If the purchaser/end-user or his representative requires independent tests, they shall be carried out in accordance with this standard on the written instructions of the end-user or his representative.

The manufacturer/vendor shall supply, free of charge, the cement required for testing unless otherwise specified in the enquiry and order, the cost of the tests shall be borne

- a) by the manufacturer/vendor, if the results show that the cement does not comply with the requirements of this standard; or
- b) by the end-user, if the results show that the cement complies with the requirements of this standard.

#### 10 SAMPLING

Where the compliance of a lot to the requirements of this specification is to be assessed based on statistical sampling and inspection, sampling scheme specified in Appendix A shall be applied.

In case a sample is required for independent tests, it shall be taken, at the option of the enduser or his representative, before delivery or within one week after delivery of the cement specified in Appendix A.

Where the compliance with this specification is to be assured based on manufacturer's control system coupled with type testing and check tests or any other procedures, appropriate schemes of sampling and any other inspection procedures can be adopted.

All the samples shall be directed to the testing authority with immediate effect and the tests shall be commenced within 4 weeks of the delivery of the sample to the testing authority.

#### 11 INSPECTION AND TESTING

#### 11.1 Inspection

#### **11.1.1** *Lot supplied in bulk*

Where the cement supplied is in bulk form, each container shall be inspected at the sampling stage for the relevant delivery and packaging requirements specified in Clause 7.

#### **11.1.2** *Lot supplied in bags*

Where the cement supplied is in bag form, each bag selected in **A.2.1**, shall be inspected at the sampling stage for the marking and packaging requirements specified in Clause 6 and Clause 7 respectively. Required facilities shall be provided by the manufacturer/vendor responsible for the quality or its representative.

#### 11.2 Testing

The laboratory sample (*See* **A.3**) shall be tested for all the mechanical, physical and chemical requirements specified in Clause **5**.

#### 12 COMPLIANCE OF A LOT

Any lot, failing to comply with any of the following requirements during the period declared by the manufacturer, shall be deemed not to comply with this standard.

#### 12.1 Mechanical, physical and chemical requirements

The laboratory sample (See A.3) shall comply with the mechanical, physical and chemical requirements specified in Clause 5.

#### 12.2 Delivery and packaging

#### **12.2.1** Lot supplied in bulk

Each container shall comply with the relevant delivery and packaging requirements specified in Clause 7.

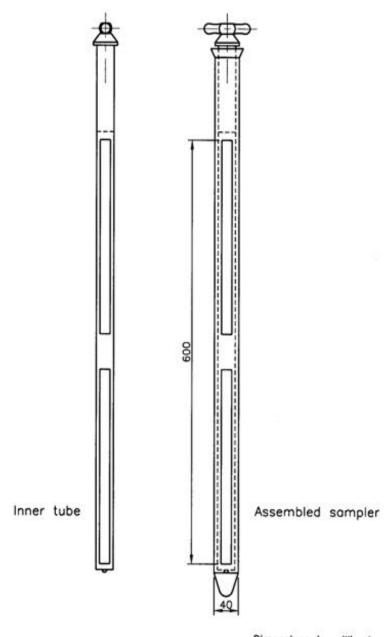
#### **12.2.2** *Lot supplied in bags*

- 1. each bag in the sample drawn in accordance with Clause **10** shall comply with the marking requirements specified in Clause **6**;
- 2. the number of bags not conforming to relevant delivery and packaging requirements specified in Clause 7 shall be less than or equal to the corresponding acceptance number given in Column 3 of Table A.1.

# APPENDIX A (Normative) SAMPLING OF CEMENT

## A.1 SAMPLING EQUIPMENT

A sampling tube (See Figure A.1) or an appropriate instrument shall be used.



Dimensions in millimetres

FIGURE A.1-Sampling tube

#### A.2 SCALE OF SAMPLING

#### **A.2.1** *Sampling from bags*

Where the cement packed in bags, the sample shall comprise the number of bags that is specified in Column 2 of Table A.1, selected at random from the lot in accordance with the lot size given in Column 1 of Table A.1.

TABLE A.1 - Scale of sampling

Lot size (N)	Sample size (n)	Acceptance Number
(1)	(2)	(3)
Up to 280	8	0
281 to 1200	32	1
1201 to 3200	50	2

**NOTE:** Table **A.1** was prepared in accordance with **ISO 2859-1:1999** Sampling procedure for inspection by attribute: Part 2-Sampling schemes index by Accepted Quality Limit (AQL) for lot by lot inspection.

To ensure the randomness of selection, a method given in SLS 428 shall be used.

Alternatively all the bags in the lot may be arranged in a serial order and starting from any bag, every  $r^{th}$  bag be selected in order to meet the requirement given in Column 2 of Table A.1, r being the integral part of N/n where N is the lot size (number of bags in a lot) and n is the sample size (number of bags have to be selected).

Approximately equal quantities of cement shall be taken from each bag selected and make composite sample in order to meet the requirements of laboratory sample (See Clause A.3).

Appropriate sampling instrument described in **A.1** shall be used to collect the cement from the bags.

#### **A.2.2** *Sampling from large containers and bulk transport (after loading or before unloading)*

Sufficient number of increments shall be drawn from evenly distributed points of each container (wagon, truck, etc...) and make a composite sample in order to meet the requirements of laboratory sample (*See* Clause **A.3**). Increments shall be taken by using a sampling tube or appropriate sampling instrument.

Care shall be taken not to take materials from the top and bottom layers of the mass of cement. The thickness of the layer to be considered is at least 150 mm.

#### **A.2.3** Sampling while charging or discharging

Sampling shall be carried out with suitable increments at regular intervals when the cement is being charged into the container/silos or being discharged from the containers/silos and make composite sample in order to meet the requirements of laboratory sample (*See* Clause **A.3**). The increments shall be such that one increment is taken per ten tonnes of cement or as specified in the agreement between the manufacturer (or vendor) and the customer (or purchaser). Appropriate sampling instrument shall be used.

#### **A.3 LABORATORY SAMPLE**

Prior to preparation of laboratory sample, the composite sample shall be carefully homogenized (in a laboratory) with clean dry implements, not liable to react with the cement.

Homogenization shall be achieved by a suitable mixing machine if available. In the absence of a mixing machine, careful mixing with a shovel on clean dry surface shall be used.

Immediately after homogenization of sample, it shall be divided equally (*See* Note) into required number of laboratory samples by using a sample divider or other suitable means. The laboratory sample shall be of such a size that all the tests whatever specified can be carried out twice.

**NOTE:** *In general at least* 5 kg *of cement sample would be sufficient to carry out all the tests twice.* 

#### A.4 PACKAGING AND STORAGE

The samples shall be packed, dispatched and stored in polyethylene/polypropylene (PE/PP) bags with thickness at least  $100~\mu m$  or rigid containers made of material that is inert to cement and non-corrodible. They shall be dry, impervious (to air and moisture) and clean. In this respect they shall not have been used for packaging products which are likely to affect the samples.

Each of the laboratory sample shall be divided into two equal portions and packed separately (second portion of the laboratory sample for retest if required).

To minimize the aeration

- a) where the rigid container is used, it shall, as far as possible, be completely filled and their closure shall be sealed (integral seal or other suitable means); or
- b) where the PE/PP bag is used, the air in the bag shall, as far as possible, be removed and provision shall also be made to seal them where necessary.

The samples shall be stored below 30 °C until commencement of testing.

**NOTE:** It should be noted that packaging, however air-tight, cannot in the long term prevent a certain amount of aeration, which may vary depending on the properties of the packaging material.

# APPENDIX B (Informative) GUIDANCE ON THE USE OF CEMENT

#### **B.1 SAFETY WARNING**

Dry cement in normal has no harmful effect on dry skin. When cement is mixed with water, alkali is released. Precautions should therefore be taken to avoid dry cement entering the eyes, mouth and nose and to prevent skin contact with wet cement.

Repeated skin contact with wet cement over a period may cause irritant contact dermatitis. The abrasiveness of the particles of cement and aggregate in mortar or concrete can contribute to this effect. Continued contact during a working day can lead to cement burns with ulceration but this is not common. Some people are sensitive to the small amounts of chromate which may be present in cement and can develop allergic contact dermatitis, but this is rare.

When working in places where dry cement becomes airborne, protection for the eyes, mouth and nose should be worn.

When working with wet mortar or concrete, waterproof or other suitable protective clothing should be worn such as long sleeved shirts, full length trousers, waterproof gloves and shoes. Clothing contaminated with wet cement, mortar or concrete should be removed and washed before further use.

If cement enters the eye it should immediately be washed out thoroughly with clean water and medical treatment should be sought without delay. Wet mortar or concrete on the skin should be washed off immediately.

#### **B.2** STORAGE

To protect cement from premature hydration after delivery, bulk silos should be waterproof and internal condensation should be minimized.

Paper bags should be stored clear of the ground, not more than eight bags high and protected by a waterproof structure. As significant strength losses begin after several weeks of storage in bags in normal conditions, and considerably sooner under adverse weather conditions or high humidity, deliveries should be controlled and used in order of receipt.

#### **B.3** FINENESS

In general, fineness varies from about 300 m<sup>2</sup>/kg to 400 m<sup>2</sup>/kg with the latter value in the order of that of rapidly hardening Portland cement. If the selection of cement is to be based on fineness, the advantages and disadvantages listed below should be taken into account with respect to the specific application under consideration.

Cement with a greater fineness has the following advantages.

- a) possesses a higher volume per unit mass and hence yields greater volume of cement in volume batched concrete or mortar;
- b) develops higher early strength although standard strength (28 days) may not be very different from any other cement;
- c) improves workability and also causes less bleeding in mortar or concrete; and
- d) requires a lesser curing period.

Cement with a greater fineness has the following disadvantages.

- a) decays rapidly when left exposed to the atmosphere;
- b) gives rise to higher shrinkages and greater proneness to cracking;
- c) more amenable to "pack set" when cement bags are piled one above the other;
- d) higher cost of grinding;
- e) requires more gypsum to retard the initial set of cement which has more tricalcium aluminate available for early hydration;
- f) faster alkali-aggregate reaction if such a reaction is likely with the aggregates used;
- g) generates heat more rapidly during the chemical reaction; and
- h) requires good initial curing.

However, it should be noted that most of the disadvantages can be overcome by greater quality control.

# **APPENDIX C** (Informative)

TABLE C.1 - GUIDELINES FOR USAGE OF CEMENTS IN SRI LANKA (SLS 107, SLS 515, SLS 1247 & SLS 1253)

				Guid	lelines	for usa	ge of ceme	nts in Sri I	_anka		
Cement type and SLS No	Strength class	(a) Normal strength concrete (grade 30 & below)	(b) Medium strength concrete (greater than grade 30 & up to 40)	(c) Concrete subjected to severe exposure condition	(a) & (c)	(b) & (c)	Pre-cast concrete	Cement based products	Rendering	Masonry work	Plastering
OPC	32.5 N/R	***	**	**	**	**	***	***	***	**	**
SLS 107	42.5 N/R	***	***	**	**	**	***	***	***	**	**
внс	32.5 N/R	***	**	***	***	**	**	*	***	**	**
SLS 1247	42.5 N/R	***	***	***	***	***	**	*	***	**	**
PLC	32.5 N/R	***	**	*	*	*	**	*	***	**	**
SLS 1253	42.5 N/R	***	***	*	*	*	**	*	***	**	**
MC SLS 515	22.5	Not Recommended						***	***		

 $BHC \quad - \ Blended \ Hydraulic \ Cement, \quad OPC - Ordinary \ Portland \ Cement, \quad PLC - Portland \ Limestone \ Cement, \quad MC - \ Masonry \ Cement$ 

**NOTE:** *Usage of cement for concrete may be in accordance with* **EN 206-1** and **BS 8500**.

<sup>\* -</sup> May be used under technical guidance,

#### **AMENDMENT NO. 1 APPROVED ON 2021-02-24 TO SLS 515: 2018**

# SRI LANKA STANDARD SPECIFICATION FOR MASONRY CEMENT (Second Revision)

## 3.9 masonry cement

In line 4, delete ',rendering'

## 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

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.

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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.

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