

As an accredited laboratory, this laboratory is entitled to use the following accreditation symbol.



Valid from 14 May 2020  
to 13 May 2023  
Issued on 14 May 2020



ISO/ IEC 17025  
TL 004 - 03

## Schedule of Accreditation

Accreditation Scheme for Testing Laboratories  
Sri Lanka Accreditation Board for Conformity Assessment

Accreditation Number : TL 004-03

**Materials Laboratory**  
**Industrial Technology Institute**  
No.363, Bauddhaloka Mawatha

Colombo 07.

**Scope of Accreditation:** Performing Chemical Testing on Cement and Metal (Reinforcement Steel) and Mechanical Testing on Metal (Reinforcement Steel) as per the test methods appearing in this schedule

The laboratory is accredited for the following tests in page 01 & 02.

Sl	Product(s)/ Material of test	Specific tests performed	Test Method / Standard against which tests are performed	Range of testing/ Limits of detection
<b>Chemical Testing</b>				
01	Cement	Loss on ignition	SLS 107:2015 SLS ISO 29581: Part 1:2011 BS EN 196: Part 2: 2013	0.1 – 10.0 %
		Insoluble residue		0.1 – 10.0 %
		Sulfate		0.1 – 5.0 %
		Chloride		0.01 – 0.50 %

Sl	Product(s) / Material of test	Specific tests performed	Test Method / Standard against which tests are performed	Range of testing/ Limits of detection
02	Metal - Reinforcement Steel	Carbon	Combustion Infrared - Absorption method	0.01 % - 0.50 %
		Sulphur		0.001 % - 0.050 %
		Phosphorus	UV Visible Spectrophotometry	0.001 % - 0.040 %
		Copper	Atomic Absorption Spectrophotometry	0.01 % - 1.0 %
		Carbon Equivalent		0.01 % - 1.0 %
<b>Mechanical Testing</b>				
03	Metal Reinforcement Steel (Diameter 10-32mm)	Yield strength	SLS 375:2009 and BS 4449:2005 + A3:2016	475-675 MPa
		Tensile strength		500-700 MPa
		Tensile strength to Yield strength ratio		1.00-1.50
		Total elongation at maximum force		1.0 -10.0 %
		Mass per Meter		0.500-7.000 kg
		Rebend test		Upto 900 kN
		Bend test	SLS 375:2009	Upto 900 kN
		Total Elongation at break		10-40
04	Cement	Compressive strength (2 days)	SLS 107: 2015 SLS ISO 679:2011	7-35 N mm <sup>-2</sup>
		Compressive strength (28 days)		25 -70 N mm <sup>-2</sup>
		Setting time	SLS 107: 2015	20 -300min
		Soundness	SLS ISO 9597:2011	0.0-20 min
05	Rubber Products	Shore A Hardness	ISO 7619-1:2010	30 -90 Shore A
		IRHD N Hardness	ISO 48-2:2018	30 - 90 IRHD N
		Heat Aging - Aged tensile strength - Heat aging Shore A - Heat aging IRHD N	ISO 188:2011	Method B 23 °C ± 1°C 70 °C ± 1°C 85 °C ± 1°C 100 °C ± 1°C
		Stress relaxation	ISO 3384:2011	Method A & B Cylindrical disc 25% Compression ,
		Density	ISO 2781:2018	0.024 - 2.600 gcm <sup>-3</sup>
		Compression Set	ISO 815 - 1:2014	Type B, 25 % Compression 23 °C±1°C, 70 °C ± 10C 85°C ±1°C, 100 °C ± 1°C
		Abrasion	ISO 4649:2017	Cylindrical test piece, Non rotating 20 mm <sup>3</sup> /minimum
		Tensile Strength	ISO 37:2017	10 -500N Dumbell 0-60 MPa
		Tensile properties (Elongation)	ISO 37:2017	1-3700% , 500mm/min