

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



Valid from 21 March 2019  
to 19 November 2019  
Issued on 21 March 2019



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

Material Laboratory  
Industrial Technology Institute  
N o.210 / 4, Wijerama Mawatha  
Colombo 07.

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

The laboratory is accredited for the following tests.

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 %
02	Ceramic and Porcelain ware	Lead	SLS 1222: Part 2 : 2001	0.2 – 20 mg / l
		Cadmium	ISO 6486 : Part 1 : 1999	0.02 – 1.8 mg / l
03	Metal - Reinforcement Steel	Carbon	Combustion Infrared -Absorption method	0.01 % - 0.50 %
		Sulphur		0.001 % - 0.050 %
		Phosphorus	UV Visible Spectrophotometry	0.001 % - 0.010 %
		Copper	Atomic Absorption Spectrophotometry	0.01 % - 1 %
		Carbon Equivalent	Spectrophotometry	0.01 % - 1 %

SI	Product(s) / Material of test	Specific tests performed	Test Method / Standard against which tests are performed	Range of testing/ Limits of detection
<b>Mechanical Testing</b>				
01	Rubber Products	Shore A Hardness	ISO 7619-1 : 2010	40 – 89 shore A
		IRHD Hardness	ISO 48 : 2010	30 – 85 IRHD
		Heat Aging	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 : 2008	
		Compression	ISO 815 : 2014	Type B, 25 % Compression 23 °C ± 1°C, 70 °C ± 1°C 85 °C ± 1°C, 100 °C ± 1°C
		Abrasion	ISO 4649 : 2010	Cylindrical Test Piece Non rotating, 20mm <sup>3</sup> minimum
		Tensile Test	ISO 37 : 2011	10 N to 500 N Dumb –bell, 500mm/min
		Tensile Properties (Elongation)	ISO 37 : 2011	1 % to 1000 % 500 mm / min
02	Cement	Compressive strength (2 days)	SLS 107:2015 SLS/ISO 679:2011	7-35 Nmm <sup>-2</sup>
		Compressive strength (28 days)		25-70 Nmm <sup>-2</sup>
		Setting time	SLS 107:2015 SLS/ISO 9597:2011	20-300 min
		Soundness		0.0 – 20 mm
03	Metal Reinforcement Steel (Ø 10-32mm)	Yield strength, MPa	SLS 375:2009 and BS 4449:2005 + A3:2016	475-675
		Tensile Strength, MPa		500-700
		Tensile Strength to Yield strength ratio		1.00:1.50
		Total elongation at maximum force, %		1.0 -10.0
		Mass per meter, kg		0.500-7.000
		Rebend test		Upto 900 kN
		Bend test		SLS 375:2009
		Total Elongation at break		10-40

Director /CEO  
Sri Lanka Accreditation Board for Conformity Assessment