UGANDA NATIONAL BUREAU OF STANDARDS

CERTIFICATE OF LABORATORY RECOGNITION

Certificate No: UNBS/LRS/0037

This certificate is valid as per the scope stated in the accompanying schedule of recognition, Annex "A" which is an integral part of the present certificate bearing the above recognition number for

MECHANICAL AND CHEMICAL ANALYSIS OF STEEL AND STEEL PRODUCTS

In accordance with the recognised International Standard **ISO/IEC 17025:2017**

Being supplied to

TEMBO STEELS (U) LIMITED

P.O. Box 26373, Kampala, Uganda.
Plot 93 Block 74 Lugazi, Buikwe District

The recognition demonstrates technical competence and the operation of a laboratory quality management system to perform the tests as described in the Annex. While this certificate remains valid, the recognised laboratory above is authorised to use the relevant UNBS recognition number to issue facility reports and /or certificates.

Recognition Decision Date:2024-02-01
Date of original issue: 2024-02-01
Certificate Issue No: 01

Effective Date: 2024-02-01
Expiry date: 2027-01-31
Certificate Issue date: 2024-02-01

.....
Executive Director
UGANDA NATIONAL BUREAU OF STANDARDS

ANNEX A

SCHEDULE OF RECOGNITION – TESTING LABORATORIES

Facility Number	UNBS/LRS/0037	S/N	Technical Signatories	Method
Tembo Steels (U) Limited Lugazi Plot 93 Block 74 Buikwe District		1.	Amar Nath Singh	ISO 15630-1:2019, US EAS 412 – 2: 2019,US EAS 412 – 1: 2019, EAS 914: 2019 (TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
		2.	Andrew Mosibo Wanjala	ISO 15630-1:2019, US EAS 412 – 2: 2019,US EAS 412 – 1: 2019, EAS 914: 2019 (TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
		3.	Musoke Brian	ISO 15630-1:2019, US EAS 412 – 2: 2019,US EAS 412 – 1: 2019 (TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1, EAS 914: 2019, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
		4.	Eva Gonsia	ASTM E415-17, US EAS 412 – 2: 2019; US EAS – 1: 2019, US EAS 134: 2019 (Chemical Analysis for TMT-Bars, Plain Bars, Wire rods, Angles bars , Z – Angles, Flats)
		5.	Butuwa Fred	ASTM E415-17, US EAS 412 – 2: 2019; US EAS – 1: 2019, US EAS 134: 2019 , (Chemical Analysis for TMT-

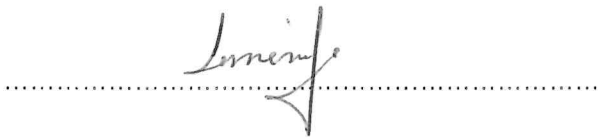
				Bars, Plain Bars, Wire rods, Angles bars , Z – Angles, Flats)

S/N	Material/ Products Tested	Type of Test/ Property Measured/ Range of Measurement	Standard Specification, Techniques/Equipment Used
	TESTING FIELD – MECHANICAL TESTING		
1	Ribbed bars (TMT)	Yield strength, ultimate tensile strength, bend, re-bend, UTS/YS, elongation	ISO 15630-1:2019, US EAS 412 – 2: 2019,US EAS 412 – 1: 2019, EAS 914: 2019 (TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars). Analysts (Amar, Andrew, Brian) UTM-Machine
2	Plain bars	Yield strength, ultimate tensile strength, bend, re-bend, UTS/YS, elongation	ISO 15630-1:2019, US EAS 412 – 2: 2019,US EAS 412 – 1: 2019, EAS 914: 2019 (TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars). Analysts (Amar, Andrew, Brian) UTM-Machine
3	Wire Nails	Tensile strength, and Dimensions (Nail point, nail shank, nail head etc)	ISO 15630-1:2019, US EAS 412 – 2: 2019,US EAS 412 – 1: 2019, EAS 914: 2019 (TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars). Analysts (Amar, Andrew, Brian) UTM-Machine ISO 15630-1:2019(TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1(Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
4	Wire rods/coils	Tensile strength, Yield strength	ISO 15630-1:2019, US EAS 412 – 2: 2019, US EAS 412 – 1: 2019, EAS 914: 2019 (TMT Re-bars

		and UTS/YS, elongation	and Plain bars), ISO 6892 & ISO 6892-1, US 160:2000, US EAS 134: 2019 (Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars). Analysts (Amar, Andrew, Brian) UTM-Machine ISO 15630-1:2019(TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1(Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
5	Angles & Flat Bars	Tensile strength, Yield strength and UTS/YS, elongation	US ISO 657-1:1989, US ISO 657-2:1989, US 160:2000, US EAS 134: 2019 Analysts (Amar, Andrew, Brian). UTM-Machine ISO 15630-1:2019(TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1(Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
6	Hollow sections	Tensile strength, Yield strength and UTS/YS, elongation	ISO 6892 & ISO 6892-1, US 160:2000, US EAS 134: 2019 Analysts (Amar, Andrew, Brian). UTM-Machine. ISO 15630-1:2019(TMT Re-bars and Plain bars), ISO 6892 & ISO 6892-1(Wire rods, Hollow section, Angle Bars, Z – Angles and Flat Bars).
	TESTING FIELD – CHEMICAL ANALYSIS		
1	All steel	Wet analysis, spectro analysis C%, Si%, Mn%, P%, S%, Cr%, Mo%, Ni%, Al%, Co%, Cu%, N%, V%, B%, Zn%, Fe%, CeV%	US EAS 412 – 2: 2019; US EAS – 1: 2019, US EAS 134: 2019 Analysts (Butuwa Fred, Eva Gonsia) Spectro-Machine. ASTM E415-17 (Chemical Analysis for TMT-Bars, Plain Bars, Wire rods, Angles bars , Z – Angles, Flats)

ISSUED BY

UGANDA NATIONAL BUREAU OF STANDARDS



MANAGER CERTIFICATION DEPARTMENT