UGANDA NATIONAL BUREAU OF STANDARDS

MATERIALS LABORATORY TEST REPORT

T1009

Test Report No: CM/2025/03802 **Sample No:** L/2767/2025E **Field No:** NA

Name of Client: TEMBO STEELS (U) LIMITED - LUGAZI **Address:** Iganga

Manufacturer / Exporter: TEMBO STEELS (U) LIMITED **Sample Quantity :** 3 Pieces

Sample Description: 25 mm, Ductility class C, Grade B500CWR (TEMBO TMX brand) **Lot Size:** NA

State of Sample(s): 03 pcs of 1m 25mm steel bars

Lab Receipt Date: 2025-09-23 **Analysis Start Date :** 2025-09-23 **Analysis End Date:** 2025-09-23

Test Method(s): ISO 15630-1, ASTM E415

Test Results

#	Parameters	Results	Specification	Status
1	* Nominal bar diameter (mm)	25	25 (Minimum)	Pass
2	Mass per unit length (kg/m)	3.809	3.696 - 4.004 (Range)	Pass
3	**Tensile properties**			
	i). Yield strength (MPa)	560	500 (Minimum)	Pass
	ii). Tensile strength (MPa)	670	575 (Minimum)	Pass
	iii). Elongation at fracture (%)	34.81	14 (Minimum)	Pass
	iv). Ratio of Tensile strength to Upper Yield strength (R_m/R_eH)	1.20	1.15 (Minimum)	Pass
4	* Bend test	The bar did not show rupture nor develop visible cracks	The bar shall show neither rupture nor cracks visible to a person of normal or corrected vision	Pass
5	*** Chemical Composition**			
	i). Manganese content (%)	0.619	1.73 (Maximum)	Pass
	ii). Sulphur content (%)	0.023	0.06 (Maximum)	Pass

Attachment(s) to the test report : NONE

Remarks:

1. The above sample was analysed as per the instructions on UNBS Request for Analysis Form serial Number RFA/2025/10572.

Analysed By: Alexander Rutaremwa

Technical Signatory: Olwa Joseph ..... **Date:** 2025-09-29

For Executive Director UNBS: ..... **Date:** 2025-09-29

1. Results marked (*) are not SANAS Accredited and are not included in the SANAS scheduled of Accreditation for this laboratory
2. Opinions and interpretations expressed herein are outside the scope of SANAS accreditation
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2. The Analysis was carried out at UNBS Materials Laboratory located at the address below using the test methods indicated above and the status of results as per the Uganda Standard US EAS 412-2: 2022; Steel for the reinforcement of concrete - Ribbed bars.
3. The sample tested above met the requirements for the parameters analysed as specified in the above Standard.
4. This test report number (CM/2025/03802) is valid for sample number (L/2767/2025E) only and the results apply to the sample as received. It replaces test report Number (CM/2025/03712)which was re-called.

Note :

i. NA means "Not Applicable".

ii. The calculated uncertainty is a relative expanded uncertainty multiplied by a coverage factor of K=2 at 95% confidence interval as indicated below:

(a) Tensile strength (N/mm²) ± 8.25 N/mm² of reported value.

(b) (b) Mass per unit length (kg/m) ± 0.03 kg/m of reported value.

Analysed By: Alexander Rutaremwa

Technical Signatory: Olwa Joseph ..... **Date:** 2025-09-29

For Executive Director UNBS: ..... **Date:** 2025-09-29

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