



UGANDA NATIONAL BUREAU OF STANDARDS

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ADMINISTRATIVE DIRECTIVES ON THE IMPLEMENTATION OF REINFORCEMENT STEEL BAR STANDARDS REQUIREMENTS

[These administrative measures are issued under section 3(e) and 3 (f) of the UNBS Act, Cap 327 of laws of Uganda].

The growing local and regional construction industry has given rise to a vibrant reinforcement steel manufacturing industry. Uganda is now a major manufacturer and exporter of reinforcement bars in the region. Though the manufacturing industry has systematically shifted to the production of ribbed bars, a considerable number of contractors/users still use cold-twisted steel bars for structural concrete purposes in contravention of both national and international standards.

It should be noted that the current East Africa Standard *EAS 412-1&2:2013* does not provide for the use of cold-twisted bars for structural concrete purposes. Internationally, twisted bars have been phased out for use in structural reinforcement of concrete due to their poor bonding and structural properties. Cold-twisted bars have been noted to provide lower bond strength with concrete. These bars also tend to become brittle during the course of twisting. Furthermore, developments in the technology for the manufacture of steel reinforcement bars have made it possible to produce ribbed bars with superior strength and bonding properties.

In order to ensure that only those steel bars of required quality and performance characteristics are marketed and used for structural concrete reinforcement purposes, Uganda National Bureau of Standards (UNBS) held two meetings with the manufacturers and key construction industry associations and regulators in the month of November 2013 and January 2015.

In accordance with its mandate and in the interest of protecting the public, UNBS therefore directs all manufactures and key construction stakeholders and players as follows:

1. PRODUCT STANDARDS AND QUALITY

All reinforcement steel bars produced, imported, marketed and used shall meet the relevant national, EAC standards and other regulations. The current National/EAC standard for steel bars for reinforcement of concrete is *EAS 412-1&2: 2013*. All reinforcement steel bars shall be manufactured in accordance with Good Manufacturing Practices.

2. COLD-TWISTED REINFORCEMENT STEEL BARS

- The manufacture of cold-twisted bars for structural concrete reinforcement purposes is **prohibited** with immediate effect.
- The importation of cold-twisted bars is **prohibited** with immediate effect. Only those importers with consignments already at sea and ordered before 30th January shall be allowed.
- Manufacturers and distributors of cold-twisted bars are given up to 30th of June 2015 to phase out and clear all stocks in the market.

3. PRE-MARKET APPROVALS

All reinforcement steel bars shall be certified by UNBS. New companies setting up manufacturing plants for the production of steel products for the construction industry shall seek pre-approval of the product prior to marketing.

4. OPERATIONAL REQUIREMENTS

PROCESS CONTROLS AND RECORD KEEPING

Manufacturers shall maintain appropriate and up-to-date production and quality monitoring records. These shall be made available to UNBS upon request.

ROUTINE QUALITY MONITORING

Manufacturers shall demonstrate their capacity to monitor key quality parameters during manufacture. This shall cover both in-process (cast analysis) and final product. No manufacturer shall be allowed to operate without a laboratory (physical, mechanical and chemistry) after 6 months.

TECHNICAL PERSONNEL

All steel bar manufacturing plants shall be run under the supervision of qualified and competent personnel to operate and maintain these facilities. Each plant shall have duly appointed quality assurance personnel with the requisite training, experience and technical competence to develop and implement a quality control and assurance system.

5. FINAL PRODUCT MONITORING AND CONTROL

QUARTERLY SAMPLING & TESTING

UNBS shall carry out quarterly sampling and testing of key quality and performance parameters. Samples shall be taken either from the market or production line.

SURVEILLANCE AUDITS

UNBS shall carry out surveillance audits at least twice a year to ensure conformance of production and quality control/assurance processes to standard/regulatory requirements.

All manufacturers and construction industry stakeholders are informed that compliance with these measures takes immediate effect.

Non-compliance to these measures by manufacturers and importers of construction materials will attract punitive administrative and legal sanctions.



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