

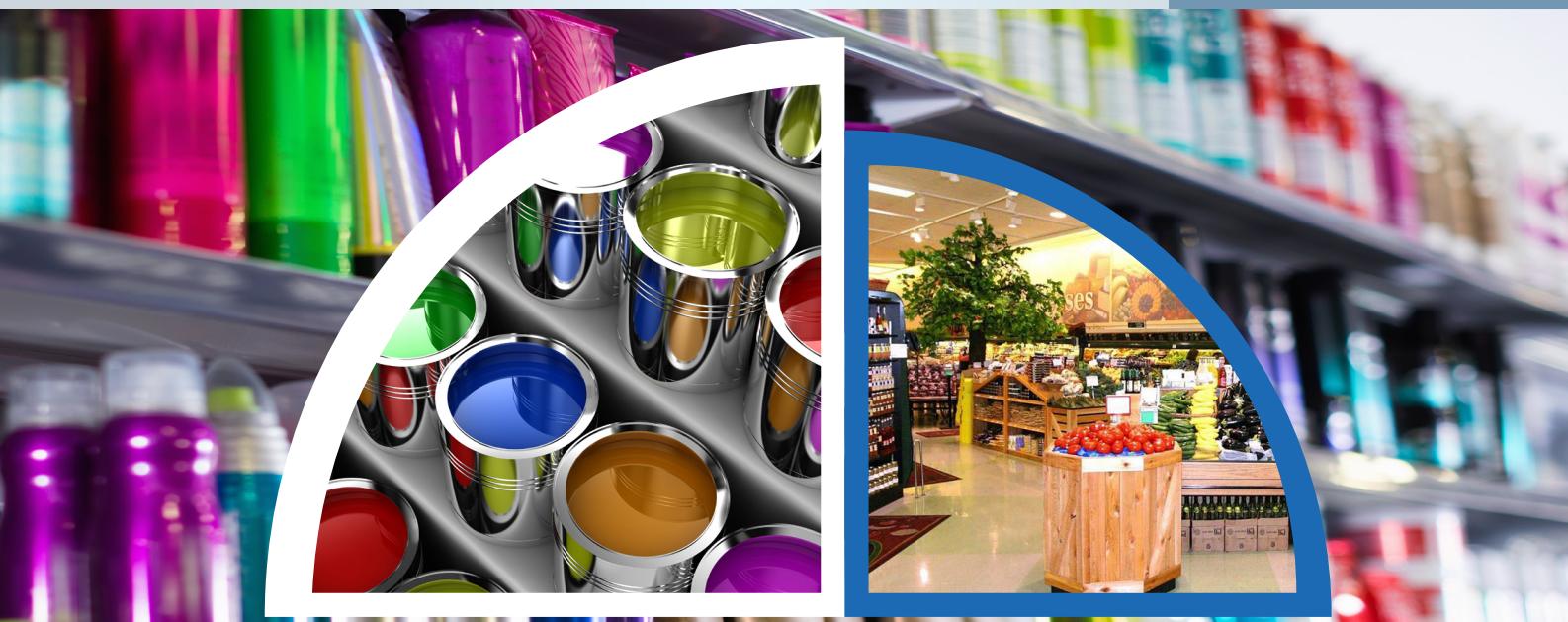


Kenya Bureau of  
Standards  
Standards for Quality life

# MONTHLY NEWS LETTER

Promoting Stakeholder Standardization, Industrialization and Commerce

STANDARDS EDITION



## KEBS Unveils 102 New Standards

The bureau releases new standards on food, motorcycle helmet liners, cosmetics , oil, gas....



Consumer Privacy



Construction Standards



Food Safety For Health



# KEBS Approves 102 New Standards

The Kenya Bureau of Standards (KEBS) has approved 102 new standards that will ensure Kenya's products can access wider markets. Highlighted below is a range of the recently approved five new standards.

The industry regulator approved hermetic bags for food storage, motorcycle helmet liners for use by riders and pillions, cosmetics, oil and gas as well as leather and textile.

The food standards comprise adoption of recently approved East Africa Standards in area of: Infant and young children feeding; Edible salt sector; Food Fortification; milk sector; meat sector, sugar sector; and cocoa products.

## Food Fortification

The revision of the infant feeding standards, salt, food fortification, milk and meat sector was initiated by

Kenya on the request of the industry players to among other issue align them to the international standards as well as reviewing specific parameters that were restrictive to trade.

The food fortification standards in particular, aimed at ensuring the quality and safety of premix supplied within the region of is of high quality to avoid proliferation of substandard premix from the neighbouring countries.

The salt refineries have been having challenges due to technical error in the 2019 edition of the salt standard,

resulting to unnecessary losses especially while trading with the Partner States. The current edition has resolved the technicalities and thus it is expected to improve trade of salt within the region.

## Market Access

The set of milk standards, which are fermented milk and cheese standards, are new East Africa Standards. These East African Standards replaces the equivalent existing Kenya

## Standards

"In the spirit of regional integration and wider market access, these standards will enable the local

manufacturers of these products access a wider market without seeking quality clearance from the Partner States based on mutual recognition of mark program." says, Lt Col (Rtd) Bernard Njiraini, Managing Director-KEBS.

For oil and gas industry use, KEBS has established requirements for mechanical designs, material selection, testing, identification of corrosion mechanisms for oil and gas industry, which shall be of use by Tullow Kenya and other multinational oil companies involved in the storage, transportation, exploration and production of petroleum products.

### **Stakeholder Engagement**

The standards will ensure that the equipment brought in the country are of specified quality to guarantee reliability and the systems shall ensure that safety is enhanced.

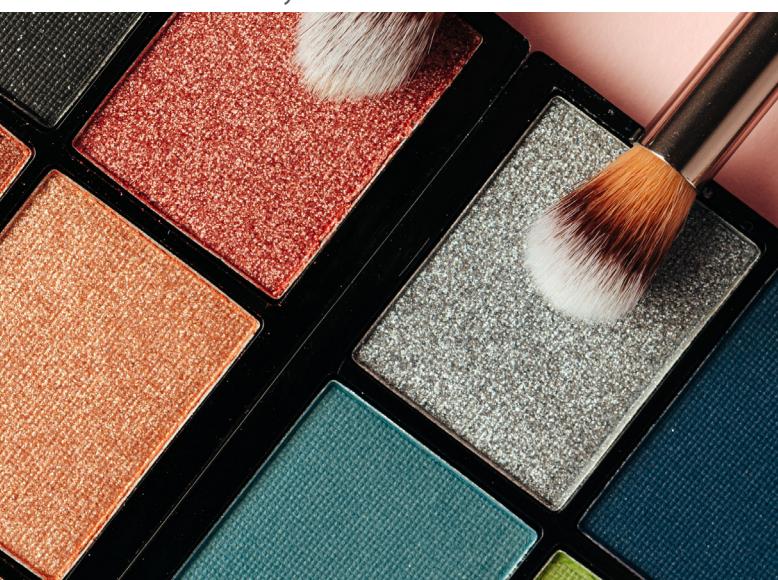
"These Standards for oil and gas have been developed in collaboration with the industry, relevant stakeholders and in line with international best practice and will ensure that equipment and structures being used are reliable and safe" says the MD. The new standards approved for oil and gas are; KS ISO 13680:2011 Corrosion resistant alloy seamless tubes for use as casing, tubing and coupling stock - Technical delivery conditions, KS ISO 14691:2008 Flexible couplings for mechanical power transmission - General purpose application, KS ISO 10441:2007 Flexible couplings for mechanical power transmission - Special purpose application and KS ISO 13691:2001 High speed special purpose gear units.

### **Safety Concerns**

Other new standards approved for oil and gas include KS ISO 12211:2012 Spiral plate heat exchangers, KS ISO 21457:2010 Materials selection and corrosion control for oil and gas production systems, KS ISO 21329:2004 Pipeline transportation systems- Test procedure for mechanical connectors, KS ISO 13626:2003 Drilling and well servicing structures and KS ISO 27627:2014 Aluminium alloy drill pipe thread connection gauging

### **Cosmetics**

For cosmetics, KEBS has approved twelve standards that address the safety concerns of essential oils used in



Lt Col (Rtd.) Bernard Njiraini, Managing Director-KEBS.

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cosmetics sector in the country. Essential oils are extracted from natural ingredients and herbs, and some of these can be directly applied on the skin. However, they are mostly blended with other ingredients to provide fragrance and in some cases antioxidant properties to personal skin care products like creams, lotions and body wash. They are also used in hair care products.

The Standards body specifies certain characteristics of several essential oils with a view to facilitating the assessment of their quality. Some of the parameters include appearance. Colour, odour, Relative density, refractive index, optical rotation, miscibility in ethanol, freezing point, residue on evaporation, flash point and chromatographic profile.

Some of the standards approved to address these concerns include, KS ISO 770:2002, Crude or rectified oils

of Eucalyptus globulus (Eucalyptus globulus Labill) and KS ISO 3475:2020, Essential oil of aniseed (Pimpinella anisum L.). According to KEBS Managing Director, the standards will be used by a wide range of stakeholders in the cosmetics sector, including manufacturers, porters, traders, testing bodies, research bodies, institutions of higher learning and regulatory bodies.

### Safety Gears

Without forgetting motorcycle operator, the bureau of Standards has a new standard for Disposable helmet liner that aims at encouraging the use of motorcycle helmets by both riders and pillions, and other standards in the leather and textiles sector

The new mode of transportation using two wheeler motor cycles popularly known as "BodaBoda" is very popular though it has raised issues of safety due to riders and passengers' failure to use safety gears, such helmets.

One of the reasons cited for not using helmets is health issues arising from multiple use of a single helmet by many passengers.



reducing injuries, and even fatalities in this fast growing sub-sector of economy. Other standards developed for the Textile sub-division are various test methods for carpets and other floor covering. In addition to the above standards, there are three developed standards for locally and authentic textile products. The three products are popular with, both locals and tourists as well.

They include KS EAS 1014:2021 Kenya Standard — Textiles — Dera dress — Specification, First Edition, KS EAS 1015:2021 Kenya Standard — Textiles — Kikoi — Specification, First Edition and KS EAS 1016:2021 Kenya Standard — Textiles — Maasai Shuka — Specification, First Edition

These standards are key to unlocking the potential in our textile sector and we are committed to ensure that the sector gets it right from the onset with the use of these new standards," says Njiraini. A summary of all published Kenya Standards can be accessed on <http://onlinecatalogue.kebs.org>.

To access a full list of the Standards approved or confirmed by the National Standards Council in November 2021, please visit the KEBS website [www.kebs.org](http://www.kebs.org) under what we do < Standards development.>Gazetted Standards or using the link [https://www.kebs.org/index.php?option=com\\_phocadownload&view=category&id=68:year-2021&Itemid=525](https://www.kebs.org/index.php?option=com_phocadownload&view=category&id=68:year-2021&Itemid=525).

To access and purchase these Kenya Standards, please visit the KEBS Webstore on KEBS website [www.kebs.org](http://www.kebs.org) under online services or through the following link <https://webstore.kebs.org>.

### Leather and Textile

KEBS, through Leather and Textile Division has developed a standard for Motor cycle riders/passengers helmet liners; KS 2944:2021 Kenya Standard — Disposable helmet liner — Specification. The standard, is aimed at



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# 9th ARSO Continental Essay Competition for the year 2022

**THEME**

The Role of Standardization in Promoting African Pharmaceutical and Medical Devices Industries to Attain Self-reliance and resilience in Combating COVID-19 and Future Pandemics

**PRIZES FOR WINNERS**

POSITION	CONTINENTAL	NATIONAL
1 <sup>st</sup>	USD 1000	KES 80,000
2 <sup>nd</sup>	USD 800	KES 70,000
3 <sup>rd</sup>	USD 500	KES 60,000

**Who is eligible**

University and College Students under the age of 35 years are eligible to participate

**Please Note**

- i. Essays should be between 1000 and 1200 words.
- ii. Essays should be in English, double spaced and presented in Century Gothic, size 12.
- iii. Authors may use up to 50 words to describe themselves. Information should include their names, course and year of study, name, town and country in which their university is located.
- iv. Participants are allowed to submit one essay only.

**Submission**

Contacts of authors:  
Authors should provide us with their postal, physical, telephone and email addresses on the first page of the essay together with the title of the essay and information on the author. Also kindly attach a copy of the Identity Card or Passport and a completely filled registration form that can be obtained from AMC Group Africa Limited (<http://amcgroupanafrica.com/>) and ARSO (<https://www.arso-oran.org>)

**Information on the author:**  
Authors may use up to 50 words to describe themselves. Information should include their names, course and year of study, name, town and country in which their university is located.  
(N.B: this will not be part of the 1000-1200 words)

**Entry Rules And Conditions**  
This competition is open to Citizens of all African Countries Only below the age of 35 years living in Africa and studying in a university/college recognized by the local commission for university education or equivalent body in their countries

**KEBS Proudly Supports**


Kenya  
Vision  
2030

**Submission**

All essays to be submitted through email: [competition@kebs.org](mailto:competition@kebs.org)  
Deadline for submission: 28th February 2022

# Comply To Design Construction Standards



With only a few years left to the deadline, fast tracking deployment of robust and high-quality infrastructure facilities is fundamental to transforming Kenya into a middle level economy that is competitive and prosperous with a high quality of life as envisioned in the Vision 2030.

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President Uhuru Kenyatta's development blueprint, the Big 4 Agenda, comprising of Food Security, Affordable Housing, Manufacturing and Affordable Healthcare also spotlights sound structural facilities as the backbone for development.

Globally, structural engineering standards establish common design criteria, methods and understanding regarding the design of structures between owners, operators and users, designers, contractors, and manufacturers of construction products. This ensures increased structural safety and quality and removal of non-tariff trade barriers.

Over the years the British Standards and Codes of Practice

have been widely used in structural engineering practice in Kenya. However, in 2010, in a move to break trade barriers due to different technical specifications and design approaches used from one country to another in Europe, the British Standards Institution (BSI), European Union member countries as well as European Free Trade Association (EFTA) changed from the use of British Standards to the use of Structural Eurocodes.

## Technical Expertise

Since the British Standards and Codes of Practice are no longer supported by the original developer, British Standards Institution, this means is that they will not be subjected to regular reviews. Normally, a standard should be reviewed constantly, approximately every five years. The fact that British Standards and Codes of Practice have been withdrawn by BSI means that they will not be reviewed regularly to incorporate new knowledge and advancements in science rendering them obsolete.

It is important to note that Eurocodes have over thirty (30)

years of development which means they are technically superior standards. They emphasise structural safety, robustness of design, fit for use to ensure that the structure will not collapse or fail to serve the intended function. Eurocodes also require that design and execution should be done by qualified and experienced persons. Another best practice in the Eurocode is adequate supervision and quality control during and after design and construction.

A notable change in the Eurocodes is the difference in design approach. For example, in structural design the Eurocode uses cylinder strength as opposed to cube strength. Factors of safety and design parameters such as the axis, symbols, design in shear have also changed. Additionally, specifying and testing of concrete which was largely based on cube strength is now based on cylinder strength.

#### **Harmonizing Eurocodes**

In addition to EU-EFTA member countries, many countries in Europe, Asia, Africa, Oceania, and South America have since adopted the Eurocodes. In Africa, South Africa, Morocco, Algeria, Tunisia, Madagascar, Ethiopia among others are in different stages of adopting Eurocodes.

Recently, the Kenya Bureau of Standards (KEBS) began the process of harmonizing Eurocodes. This has allowed the development of a National Annex with Nationally Determined Parameters factoring in the country's climatic conditions that vary from one region to another in designing infrastructure. Some of the climatic factors put into consideration include Earthquake design, Wind Map, among others.

However, we are far from a full transition to Eurocodes as a country. There is need for training and practice. Universities should teach in Eurocodes and at the same time structural designs for approval should be submitted in Eurocodes. Specifications in contracts, general and

specific conditions in design and construction need to reflect and apply the use of Eurocodes. All design software, testing equipment and quality control processes also need to be calibrated and adjusted to Eurocodes.

#### **Global Competitiveness**

Additionally, close collaboration and sensitization of all stakeholders including engineering professionals, government agencies, training institutions and consumers. This will ensure a unified system that safeguards consistency in materials, design, execution and testing as outlined in the Eurocodes for safe, reliable, functional, economical, and resilient structures that can withstand climatic issues such as wildfires, floods, and droughts.

**Over the years the British Standards and Codes of Practice have been widely used in structural engineering practice in Kenya. However, in 2010, we changed from the use of British Standards to the use of Structural Eurocodes.**

It is expected that any country that adopts Eurocode will increase its global competitiveness, quality, safety, and reliability of its structures like buildings. Adopting Eurocodes will also help improve health, fire safety and innovation. Other benefits include enhanced energy economy, stability of structures as well as environmental considerations.

Embracing Eurocodes means we are speaking a common technical language with majority of countries in the world. This will guarantee that we design and construct buildings and structures that meet global safety, health, and environment standards. It will also improve

trade and break many barriers to trade for our country thus opening opportunities for local engineering consultants and contractors to provide products and services in the international market.

**Eng. Shammah Kiteme is a Technical Committee member at Kenya Bureau of Standards (KEBS)**



# Safe Food Now

## For a Healthy Tomorrow



The foundation of a healthy nation is underpinned by the quality and safety of food that is produced and consumed. The theme for 2021 “Safe Food Now For a Healthy Tomorrow” puts emphasis on both immediate and long-term benefits of food to the people, planet, and the economy.

As the National Standards Body, the Kenya Bureau of Standards (KEBS) sets food standards and specifications across the entire food value chain from farm to fork. The standards and codes of practice developed establish safe limits to contaminants such as mycotoxins for susceptible food products like cereals, cereal products, animal feeds and milk.

Additionally, KEBS, through its membership at Codex Alimentarius Commission (CAC), has adopted FAO/WHO heavy metal limits to ensure that contaminants such as lead, arsenic, mercury, and cadmium are not transferred to food from polluted farms or industrial wastes.

### Compliance

The National Standards Body has also put in place guidelines on how to avoid the carryover of pesticide residues from raw materials to final food products. Several food standards for final products and ingoing ingredients such as safe addition of vitamins and minerals into food products have been developed to improve product nutritional value. Furthermore, a series of national standards have been established to guide farmers on how to ensure quality agricultural water.

KEBS has also outlined codes of practices and Good Agricultural and Manufacturing Practice that producers of food products should

comply with to ensure production in a hygienic environment and quality products that are safe for consumption. Other issues addressed by KEBS through standards development include antimicrobial resistance in foods and residues of veterinary drugs in food products.

KEBS also provides food testing, product/system certification services, marks of quality, inspection, and market surveillance. These services promote a safe food ecosystem in the country while enhancing product competitiveness.

# Safeguarding Security and Consumer Privacy

Fourth Industrial Revolution (4IR) initiatives reshaping the way the manufacturers and end-users engage. Technological strides made in the past few decades have set a stage for one of the most innovative times in human history.

While the Agrarian and Industrial revolutions were a phenomenon, the current information age aka' the Fourth Industrial Revolution (4IR), has had a more dramatic impact on how humanity exists and interacts with online processes availing new mechanisms on how companies and individuals work. It has proved to be more efficient and created opportunities in various sectors of society from agriculture to business to education.

However, as the world continues to digitise at a rapid pace, the issue of cyber security has become increasingly important. The World Economic Forum Report 2017 places technology threats in the top 5 societal and economic risks by likelihood and scale of impact, next to weapons of mass destruction. Moreover, according to a special report by global cyber security firm Intrusion, cybercrimes are expected to cost the world up to \$10.5 trillion in damages by 2025.

Today government departments have entrenched use of ICT in revenue departments among other customer facing offices thereby enhancing delivery of services to Kenyans.-citizen has increased the accessibility of government services. Indeed, every responsible government should be mindful of the quality of life that its citizens lead. A part of it requires correct, if not mastery, in handling of information. Challenges that governments face are mostly connected to a breakdown in accessibility, processing or sharing of information.

## ICT integration

The integration of ICT, if left unmanaged, could hurt government operations leading to loss of data and even diversion of funds. The wide range of applications from

information systems can be manipulated by ill-intended parties to commit cyber crimes. Users have to be aware of the importance of information security, characterised by 3 basic metrics - Confidentiality, Integrity and Availability. Safeguarding these critical elements ensures any information system is not weaponized or misused by hackers of data.

Confidentiality has to do with the access restriction of information from unauthorised persons. Integrity involves protecting available or accessed data from any kind of unauthorised modification or manipulation. Availability refers to accessibility of information by an authorized user when it's needed.

This demand for security, has seen new ICT security standards, ISO/IEC 27001:2013 mooted to help different organisations establish, implement, maintain and improve the calibre of security measures in their information systems based on their individual needs. This standard provides requirements and methods of assessing and resolving risks that make the system vulnerable.

Organisations that utilise Information systems cover a wide range of diversity based on size, location or product type. Therefore, ISO/IEC 27001:2013 standard is generic and adaptable to any organisation in the global landscape.

Organisations should strive to protect the information in their care. Using ISO/IEC 27001:2013 would be a strategic choice for the fulfilment of that obligation, even though the Kenyan Government has not made it a requirement for organisations to apply this standard.

**Today the government has entrenched the use of ICT in revenue departments to enhance service delivery to Kenyans.**

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