## IS 5610: 2025 Refrigerants — Specification (Third Revision)

This standard was first published in 1970. The standard was subsequently revised in 1983 and 1993. To define the quality of refrigerants used for refrigeration and air conditioning, as solvents and for aerosol making purposes, with a view to provide guidance to the manufacturer, seller, purchaser, and the end user, who may assure the supply of proper quality of these products.

In accordance with the Montreal protocol, developing nations committed to initiating a decrease in the consumption and production of HCFCs by 2015, aiming for a complete 100 percent reduction by 2030. At least 4 out of the 6 gases that are CFCs (R-11, R-12, R-113, R-114) included in the standard have been phased out worldwide and have been banned in India under ODS Rules on account of being high ozone depleting substances (CFCs). Further gas R-21 cannot be produced any longer under the ODS Rules, and HCFC (R-22) will be phased out by 2030 due to high GWP as a GHG.

Currently HFCs have replaced HCFCs and are being used in India for refrigeration and air-conditioning. However, after India's ratification of the Kigali Agreement of the Montreal Protocol, even the HFCs have been placed under a gradual phase down starting from 2 028 to 2 040 to enable their eventual replacement by Zero ODP, low GWP refrigerants.

In light of this, the committee has chosen to revise the standard to align with best International Practices, encompassing various refrigerants in a unified standard.

In this revision of IS 5610 the title has been modified, alternative refrigerants in place of phased out refrigerants with specifications have been incorporated and modifications made in requirements of packing.

The designations of various types of refrigerants specified in this standard are based in the numbering system given in IS 16656: 2017/ISO 817: 2014. For the sake of clarity, the chemical formulae of the various types of the refrigerants including CAS number are also given.

# IS 19155: 2025 Electronic Signatures and Infrastructures (ESI) — General Policy requirements for Trust Services Providers

Building trust in the online environment is key to economic and social development. Lack of trust, in particular because of a perceived lack of security, makes consumers, businesses and administrations hesitate to carry out transactions electronically and to adopt new services. Trust service providers are often an essential element to establish trust between parties transacting electronically, particularly in open public networks, and can be used, for example, to provide trusted identity information and help establish secure communications between transacting parties. Examples of such trust service providers are issuers of public key certificates, time-stamping service providers, providers of remote electronic signature generation or validation services.

For participants of electronic commerce to have confidence in the security of these trust services they need to have confidence that the trust service providers (TSPs) have established a set of procedures, processes and security measures in order to minimize the operational and financial threats and risks associated.

This standard specifies baseline policy requirements on the operation and management practices of TSP regardless of the service they provide also it aims to meet the general requirements to provide trust and confidence in electronic transactions.

This standard is the technical adoption of the European Standard ETSI EN 319 401 v 2.3.1 ‘Electronic signatures and infrastructures (ESI) — General policy requirements for trust service providers’ developed by ETSI. Modifications have been made to adapt it to India and are limited to referencing the relevant regulatory context (Information Technology Act, 2000). The technical coverage is otherwise identical.

## IS 18808: 2025 Protective Helmet for Users of Bicycles, Skateboards and Roller Skates — Specification

IS 4151: 2015 ‘Protective helmet for two wheeler riders — Specification (fourth revision)’ provides the requirements for the protective helmets with or without lower face cover for everyday use by two-wheeler riders. The standard IS 4151 provides apart from others two prominent sizes of the headforms namely 500 and 520 which suits the children.

The helmets, having headform size below 500, conforming to this standard may be used as ‘crash helmet’ for the children particularly below the age of 4 years while they are riding on pillion of two-wheeler, wherein speed shall not exceed 40 km/h. This standard is thus formulated to address the Gazette Notification dated 15 February 2022 issued by the Ministry of Road Transport and Highways (MoRTH) on the above subject. Considering the usability, the Committee observed that the mass of crash helmets which conform to this standard be as low as possible.

Bicycle riders’ helmets and helmets for users of skateboards and roller skates are fitted with a retention system to retain the helmet on the head. However, there may be a foreseeable risk that helmets of young children could become trapped and thereby cause a risk of strangulation of the child. In such cases an impact protection helmet for young children shall be used under expert guidance.

In the formulation of this standard considerable assistance was taken from the:

> EN 1078 : 2012 ‘Helmets for pedal cyclists and for users of skateboards and roller skates’.

This standard contributes to the United Nations ‘Sustainable Development Goal 3, SDG 3: ‘Good health and wellbeing’.