IS 11329: 2018 Finned Type Heat Exchanger for Room Air Conditioner (*First Revision*)

This Standard outline the requirements and tests for these heat exchangers to ensure safe and efficient operation. Key points include the classification of heat exchangers based on design, such as the fin pack with collar and tube type or microchannel type. It also specifies the materials to be used, such as copper or aluminum for tubes and aluminum for fins, with recommendations on coatings to prevent corrosion.

First published in 1985, revised version of this document was published in 2018 in view of the technological advancement in the field of refrigeration and air conditioning globally and also advent of new environmentally friendly refrigerants and phasing out of hydro fluoro carbon (HFC) refrigerants as per the directive from the policy makers and regulatory authorities. Also, considering promotion of energy efficient house hold products and advanced technology in heat exchanger manufacture, smaller diameter copper and or aluminium micro channel have been recommended for the heat exchangers.

The document defines essential terms, explains the testing procedures to ensure durability, and provides guidelines on visual inspection, brazing quality, and contamination levels. Notable tests include water and helium leak tests, strength tests to ensure the exchanger can withstand pressure, and corrosion resistance tests tailored for different environmental conditions. Additionally, it provides marking and labeling requirements to ensure traceability and compliance with BIS certification standards. The standard is designed to enhance product quality, reliability, and adherence to environmental and safety norms.