

**Summary of Indian Standard**

**Equipment for Manufacture of Fortified Rice Kernel - Specification**

Food Fortification is the practice of deliberately increasing the content of an essential micronutrient, i.e. vitamins and minerals (including trace elements) in a food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health. Food fortification has been used globally as a safe and effective measure to address anaemia and micronutrient malnutrition in the vulnerable population. Rice is an ideal vehicle for supplying micronutrients in the Indian Context as 65% of India's population consumes rice as a staple food. Rice fortification involves the addition of Fortified Rice Kernels (FRK) enriched with micronutrients (Iron, Folic Acid, Vitamin B 12) as per standards.

This Indian Standard (IS 17853:2022) prescribes the requirements of the equipment used in the production of Fortified Rice Kernels (FRK). The document outlines specifications for four main pieces of equipment: micro-pulveriser, mixer, extruder, and dryer. The standard is part of India's initiative to combat micronutrient deficiencies through rice fortification programs like the Public Distribution System, Integrated Child Development Scheme, and Mid-Day Meal Scheme.

The document details construction materials, component requirements, and performance specifications for each piece of equipment. The micro-pulveriser must produce rice flour particles below 250µm, the mixer must ensure uniform blending of nutrients, the extruder must produce uniform-sized kernels, and the dryer must maintain moisture content below 12%. All equipment must use food-grade materials, primarily stainless steel, and include proper control panels and safety features.

The standard also specifies marking requirements and provides a detailed process flow chart for FRK production, emphasizing quality control and safety measures throughout the manufacturing process.