

# IS 17782:2021 Fortified Rice Kernels - Specification

IS 17782:2021 Specification for Fortified Rice Kernels, this standard prescribes the requirements and the methods of sampling and test for fortified rice kernels.

Fortified rice kernels (FRK) are rice grains fortified with micronutrient premix. The micronutrient premix is added to rice-based carrier to form fortified rice kernels using two technologies namely, extrusion and coating. Fortified kernels are blended with non-fortified rice in a ratio of 1 percent or 2 percent to produce fortified rice. In order to overcome micronutrient deficiencies in Indian population, Government of India is promoting consumption of fortified rice containing iron, folic acid and vitamin B12, through various social security programmes like Public Distribution System (PDS), Integrated Child Development Services (ICDS), and National Programme of Mid-Day Meal in Schools (MDMS). Accordingly, the committee decided to formulate an Indian Standard on specification for fortified rice kernels to ensure its quality.

Fortified rice kernels shall contain micronutrients **Iron, Folic Acid** and **Vitamin B12**.

Fortified rice kernels may optionally contain micronutrients **Zinc, Vitamin A, Thiamin, Riboflavin, Niacin** and **Pyridoxine**.

Fortified rice kernels shall be free from added colouring matter, metal peices and other impurities except **Moisture content**, percent by mass, Max 12.0, **Broken fortified rice kernels**, percent by mass, Max 1.0, **Foreign matter**, percent by mass, Max 0.001 and **Damaged grains, Discolored grains, Chalky grains** and **Admixture** shall be absent.

Fortified rice kernels (FRK) can have several benefits, including:

1. **Iron status:** Fortified rice can improve iron status and reduce the risk of iron deficiency by up to 35%.
2. **Hemoglobin:** Fortified rice can increase mean hemoglobin concentrations.
3. **Vitamin A deficiency:** Fortified rice with vitamin A can reduce vitamin A deficiency.
4. **Folic acid:** Fortified rice can help avoid birth defects in newborns.
5. **Nutrient delivery:** Fortified rice is an inexpensive way to deliver micronutrients.

In summary, IS 17782 ensures quality of the Fortified rice kernels (FRK) so that it can enhance nutrient requirement of food consumed by population of different area of country.