

IS 9360 : 2024

Carbofuran Granules, Encapsulated

The Indian Standard IS 9360:2024 outlines the specifications for encapsulated carbofuran granules, a widely used systemic insecticide in agriculture. By adhering to these specifications, manufacturers can provide reliable products that help farmers manage pests effectively.

Key Specifications

- o **Active Ingredient:** Encapsulated Carbofuran granules are generally manufactured to contain 8.0 percent (m/m) of carbofuran. However, the Standard does not specify the amount of Active Ingredient required. Instead the Indian Standard stipulates compliance to content accuracy, ie., the observed carbofuran content in samples must align closely with the declared value, adhering to specified tolerance limits prescribed in the Standard.
- o **Formulation:** The encapsulated granules must be formulated with approved carriers, binders, stabilizers, and other formulants. The granules are designed to be dry and free-flowing, with no visible impurities or excessive dust. Added colouring may be included.
- o **Particle Size Requirements:** To ensure proper spread and application.
 - o 97% of Granules: Must pass through a test sieve having a mesh size of the upper declared limit.
 - o 5% Limit: No more than 5% shall pass through a test sieve having a mesh size of lower declared limit.
 - o Size Ratio: The ratio of smaller to larger particles must not exceed 1:3
 - o Dust Control: not more than 1.0 percent by mass of the product shall pass through 75 micron IS Sieve
- o **Attrition Test Standards:** During attrition tests, fines should not exceed 2% of the declared active ingredient, ensuring durability and effectiveness.
- o **Water Runoff Testing:** In runoff tests, active ingredient levels in water must not exceed 5% of the declared amount, maintaining environmental safety.
- o **Moisture Content:** The maximum allowable moisture content is 4%, ensuring product stability.

When buying ISI-marked Encapsulated Carbofuran Granules, here's what to check:

- o **Verify the CM/L number** marked on the product from BIS CARE app which can be downloaded from play store.
- o **Other marking** details include name and address of the manufacturer, name of the material and sieving requirements, batch number, date of manufacture, date of expiry, net quantity, nominal carbofuran content, percent (m/m) and cautionary notice as worded in the Insecticides Act, 1968, and rules framed thereunder.

You may explore further by downloading the standard for free from <https://standardsbis.bsbedge.com/>.