

IS 9360 : 2024

Carbofuran Granules, Encapsulated

Encapsulated carbofuran granules are a formulation of the pesticide **carbofuran**, a **broad-spectrum insecticide** and **nematicide** that is used to control a variety of pests, including soil **insects**, **nematodes**, and **foliar-feeding insects**. This formulation is designed to minimize **environmental impact**, reduce the risk of over-application, and provide **longer-lasting protection** for crops. Consumer expectations for this product generally include **effective pest control**, **extended release**, **ease of application** and **value for money**.

The Indian Standard **IS 9360:2024** outlines the specifications for encapsulated carbofuran granules, a widely used systemic insecticide in agriculture.

Key Specifications

- **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.
- **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.
- **Particle Size :** To ensure proper spread and application.
 - 97% of Granules: Must pass through a test sieve having a mesh size of the upper declared limit.
 - 5% Limit: No more than 5% shall pass through a test sieve having a mesh size of lower declared limit.
 - Size Ratio: The ratio of smaller to larger particles must not exceed 1:3
 - Dust Control: not more than 1.0 percent by mass of the product shall pass through 75 micron IS Sieve
- **Attrition Test:** Fines should not exceed 2% of the declared active ingredient, ensuring durability and effectiveness.
- **Water Runoff Testing:** Active ingredient levels in runoff water must not exceed 5% of the declared amount, maintaining environmental safety.
- **Moisture Content:** Maximum 4%, ensuring product stability.

When buying ISI-marked Encapsulated Carbofuran Granules, **verify the CM/L number** marked on the product from **BIS CARE app** which can be downloaded from play store.

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