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**Plastics — Poly(vinyl chloride) resins —  
Determination of number of impurities  
and foreign particles**

*Plastiques — Résines de poly(chlorure de vinyle) — Détermination du  
nombre d'impuretés et de corps étrangers*



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Published in Switzerland

## Foreword

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ISO 1265 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This second edition cancels and replaces the first edition (ISO 1265:1979), which has been technically revised.

## Introduction

Poly(vinyl chloride) resins are commonly produced as various powders that are essentially white in colour. However, the polymerization of vinyl chloride monomer into poly(vinyl chloride) uses processes that may cause some particulate impurities to be included in the powders because of the design of the construction plant and the use of heat.

This International Standard describes a simple procedure for determining the number of impurities and foreign particles in a sample, with clarification of the different cases encountered (highly contaminated, heterogeneous or homogeneous contamination of the sample).

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# Plastics — Poly(vinyl chloride) resins — Determination of number of impurities and foreign particles

## 1 Scope

This International Standard specifies a method for determining the number of impurities and foreign particles in a flattened surface of poly(vinyl chloride) resin. It is not applicable to paste resins because of their finely divided state.

## 2 Principle

A certain quantity of resin is flattened between a rigid plate (covered with a sheet of glazed white paper) and a glass plate containing a grid, and the number of specks (impurities and foreign particles) of size greater than 0,250 mm, i.e. clearly visible to the naked eye, is counted in 25 squares of the grid.

The result is expressed, by extrapolation, as the number of specks per 100 squares of the grid.

## 3 Apparatus

**3.1 Glass plate**, 340 mm × 340 mm × 4,5 mm, colourless, perfectly transparent, and without defects such as stripes, bubbles or black spots.<sup>1)</sup>

Mark in the centre of the surface of the glass sheet a grid measuring 300 mm × 300 mm, consisting of 100 30 mm × 30 mm squares. This grid may be drawn with an indelible pencil, a diamond or any other appropriate tool, on the face of the sheet which is not in contact with the resin.

**3.2 Rigid plate**, 450 mm × 450 mm, covered with a sheet of glazed white paper.

**3.3 Timer** (e.g. stopwatch).

## 4 Procedure

Spread out about 200 cm<sup>3</sup> of the test sample on the rigid plate (3.2).

Place the glass plate (3.1) on the test sample and, by slight movements of the plate, spread the sample so that it touches the glass over an area of at least 25 squares, preferably in the centre of the plate.

Mark the limits of the entire 25 selected squares with a thick pencil mark (see Figure 1).

Count the number,  $n_1$ , of coloured and black “specks” (impurities and foreign particles) visible to the naked eye inside the selected squares, within a period of 2 min. The selected squares shall be viewed from a distance of about 300 mm in good laboratory lighting conditions.

1) If there are any defects in the glass plate, take this into account in the determination.