

DUST ANALYZER
DustMon RD 100



The DustMon RD 100 was designed to reliably determine the dustiness of granular products and powders.

The Dust Analyzer DustMon RD 100 characterizes the dustiness of powders and granulates and is an ideal system to measure the amount and concentration of dust. The analysis method offers a real-time measurement with up to 1000 measurements per second. All results will be stored and can be transferred into other databases such as Excel.

BENEFITS AT A GLANCE

- | Measurement of dust concentrations
- | Determination of dust index and dust area
- | Max. 10 overlay dust curves for easy comparison of different samples
- | Sealed sample cassette
- | High reproducibility
- | Simple user interface with integrated display
- | Analysis complies with CIPAC MT 171 method

DUST ANALYZER DUSTMON RD 100

EVALUATION & ANALYSIS SOFTWARE

FEATURES

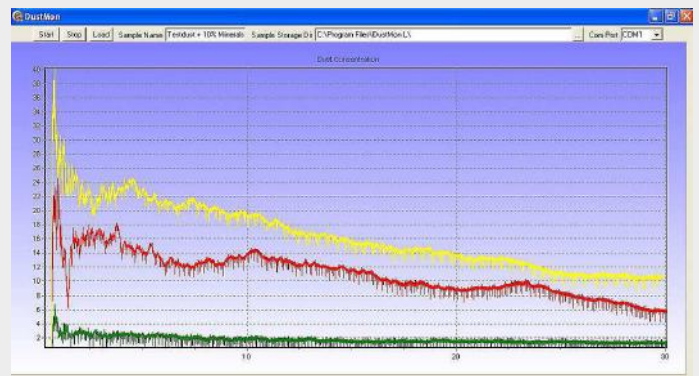
The DustMon RD 100 features two system operating modes:

- | Stand alone (no PC control)
- | Control via Windows PC

Measures taken to avoid dust formation can be controlled with the DustMon RD 100 (see Screenshot):

- | Agglomeration (e.g. tablets, granulates)
- | Production of granulates
- | Adsorption on liquids
- | Addition of dust-reducing agents

GRAPHICAL PRESENTATION OF MEASUREMENT RESULTS



The Y-axis shows the Dust concentration in percent, the X-axis shows the measurement time (typically 30 seconds per measurement) while the graph shows the result of three samples with a different amount of Dust: Very dusty (Yellow) | Less Dust (red) | Dust free (green)

SELECTED FEATURES OF THE DUSTMON RD 100 WINDOWS SOFTWARE:

- | Ability to save results including sample information, time and date of measurements
- | Data export to an external base such as LIMS or Excel
- | Ability to set up and configure the DustMon RD 100 for various applications including more advanced settings for Research and Development
- | Graphic display of measurements with the possibility to overlay historical data to analyze and compare
- | Average values are provided

Displayed results

- | Maximum dust concentration in % (0-100 % of complete dust concentration)
- | Dust concentration after 30 seconds
- | Dust index (= maximum value + value after 30 seconds)

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FUNCTIONAL PRINCIPLE

RETSCH's DustMon RD 100 consists of a dosing control system (sample beaker [1] with a valve and a tube [2], which is easily detachable for cleaning and transportation, a sample collector [3], a light source [4] and a detector [5].

The sample is poured into the sample beaker [1]. On starting the measurement, the valve opens and the sample drops down the tube [2] into the sample collector [3].

The dust generated in the sample collector will be measured by the detector [5] and the resulting dust index will be displayed.

Results:

- | Maximum dust concentration in % (0-100 % of complete dust concentration)
- | Dust concentration, dust index (maximum and concentration) and dust area available after 30 seconds



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TECHNICAL DATA

Measuring principle	Light obscuration
Measurement parameters	Dust index, dust area, max and end value
Light source	LED
Sample amount	10 g - 200 g; typically 30 g
Measuring time	30 seconds (selectable up to 999 seconds)
Operating temperature	5 - 40 °C
Electrical	12 V (DC) external power supply
Weight	~ 13.5 kg
Dimensions (W x H x D)	~ 32 x 90 x 22 cm

www.retsch.com/dustmon