

Carbon Black Dispersion (CBD)



HC-3900 (Rubber)

Overview

HC-3900 Carbon Black Dispersivity Analyzer is an instrument according to the international standard GB / T 6030-2006 rubber carbon black and carbon black silica dispersion evaluation rapid comparison method. This instrument is based on HC-3900 software and corresponding to microscope featured.

By measuring the size, shape and dispersion of carbon black particles, the internal relationship between these parameters and the mechanical properties, antistatic properties, moisture absorption properties and other macro performance indexes can be established. HC3900 It has a positive impact on the quality assurance, production process and new product R & D of rubber materials, and promotes the rapid improvement of the technical level of enterprises and industries.

Main features:

- 1、 The professional image analysis method is used to determine the dispersion grade of carbon black by computer with high detection accuracy.
- 2、 The particle size of target carbon black can be analyzed from micron to millimeter
- 3、 Equipped with professional microscope and 5 million CMOS image transmitter
- 4、 Single image can be saved, and the image size is determined by 640*480, 1024*768, 1280*1024, 2592*1944 Four sizes to choose from
- 5、 Rich image processing functions to meet the needs of various image processing
- 6、 The software can segment carbon black image automatically and manually
- 7、 The software can meet the requirements of local analysis
- 8、 Equipped with micrometer scale, it can calibrate the pixel size, and the software has the function of moving scale, which can measure the distance between any two points
- 9、 According to the types of carbon black in rubber, the standard drawing library provided by ISO is established to meet the visual comparison needs of customers
- 10、 Customers can establish their own standard drawing library
- 11、 The output results cover the number, size and area of carbon black pellets, and can be output in the form of data reports and excel
- 12、 Provide image gray scale distribution diagram, particle diameter distribution diagram and particle size distribution diagram
- 13、 The report results include: sample name, standard name, original image, gray scale map, etc. The report output format is various, you can choose picture format or PDF format to save.
- 14、 The software tries out all kinds of mainstream operating systems and has good compatibility with win7 / win10 / WinXP, etc.

15. With USB 2.0 data interface, it can adapt to a variety of acquisition devices (such as camera or digital camera)

Technical Specifications:

1. Detection range 1um—1cm;
2. Imaging resolution 2592 * 1944 (5 megapixel CCD digital camera);
3. Optical magnification 100 times
4. The angle of light source is adjustable;
5. Image size 640*480, 1024*768, 2048*1536, 2592*1944;
6. Analysis time selection image size is different, slightly different;
7. Working power supply of instrument 220V /2A/50Hz

Applicable Standards:

GBT 6030-2006 A Rapid comparative method for evaluating the dispersion of carbon black and silica in rubber.