

Standard slide

Reference : MEFTX



Standard slide

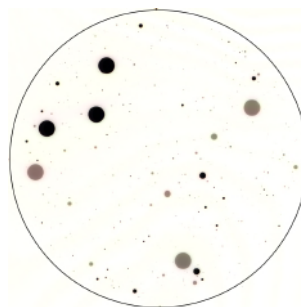
- The MEFTX standard slide is a numbered test chart generated by photolithography.
- The standard slide is engraved onto an opaline plate measuring 75 mm x 50 mm x 1.5 mm.
- 2050 particles and fibers (from 10 μm to 2 mm) are distributed randomly over a diameter of 37 mm, with a tolerance of ± 3 microns per particle.
- The circle is defined by 4 points.
- A transparent deposit of alumina protects the standard slide.

Why is a standard slide necessary?

The purpose of the standard slide is to ensure that the measuring system is capable of identifying and measuring objects from 10 to 2000 microns, at the same magnification.

The objects are engraved using different grey level densities. Hence, detection strength can be determined according to grey level thresholds

Composition of the standard slide

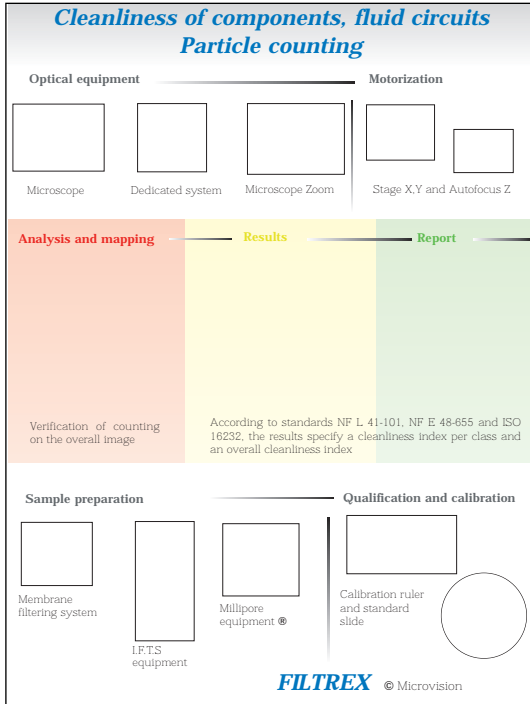


Two densities : D 4 - T 0.01 % - D 0.3 - T 50 %

CIRCLES D4, D0,3	No
10 μm	1000
20 μm	500
37 μm	250
75 μm	150
125 μm	64
175 μm	32
300 μm	16
500 μm	8
800 μm	4
2000 μm	6
TOTAL	2030

Fibers D4, D0,3	No
350 μm	10
350 μm	10
TOTAL	20

Standard slide



Analyzing the test chart using the Filtrex software package

Filtrex, coupled with a motorized microscope, a digital camera and a 5 x lens, counts the test chart in 20 minutes (Resolution: 1. 4 microns per pixel, 450 images).

The following report is an example of a standard slide analysis. Objects intersecting several fields are automatically reconstructed. The results are presented according to standard ISO 16232.

Filtrex™ : Standard Slide - 5um and greater

Study features

Reference: Standard Slide - 5um and greater
Control :
Operator: Stephen McJonathan
Notes:
Sampled on : 9/22/2006 19:21
Study file:
Date of study: 9/22/2006
filtered volume: 200 ml (reported to 200 ml)
Scanning diameter : 36.0 mm

Informations

Operation settings

Calibration factor : 1.381 m/pixel
Objects overlapping fields : Rebuilding
Fibers minimal length : 100.0 m
Fibers ratio length/width : 3.00
Channel # 1 - Thresholding : Fixed (from 0 to 200)
Channel # 1 - Filtering : None
Channel # 1 - Criteria : Length >= 5.00 m
Channel # 2 - Thresholding : Adaptive (dark: 12.4 m: 19)
Channel # 2 - Filtering : None
Channel # 2 - Criteria : Length >= 5.00 m

Count table

ISO 16232			
Class	Absolute counting	Relative counting	Contamination level
5 m - 15 m (B)	1048	1048	11
15 m - 25 m (C)	509	509	10
25 m - 50 m (D)	253	253	9
50 m - 100 m (E)	152	152	8
100 m - 150 m (F)	64	64	6
150 m - 200 m (G)	32	32	5
200 m - 400 m (H)	16	16	4
400 m - 600 m (I)	8	8	3
600 m - 1000 m (J)	4	4	2
>= 1000 m (K)	6	6	3

CCC : A(B11/C10/D9/E8/F6/G5/H4/I3/J2/K3)

Fibers : 20

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Filtrex™ : Standard Slide - 5um and greater

Statistics

	Particles	Fibers
Population	2092	20
Average	38.2 m	386 m
Standard deviation	121 m	12.1 m
Minimum	5.14 m	368 m
Maximum	2011 m	405 m
Quadratics average	127 m	386 m

Overview

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