

# Fineness of Grind Gages

Also called grind gages and Hegman gages. Many types of solid materials must be ground or milled into finer particles for dispersion in appropriate liquid vehicles. The physical properties of the resulting dispersions, often called "grinds", depend not only on the actual size of the individual particles, but also on the degree to which they are dispersed.

The Fineness of Grind Gage is used to indicate the fineness of grind or the presence of coarse particles or agglomerates in a dispersion. It does not determine particle size or particle size distribution.

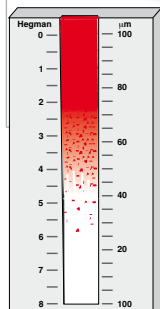
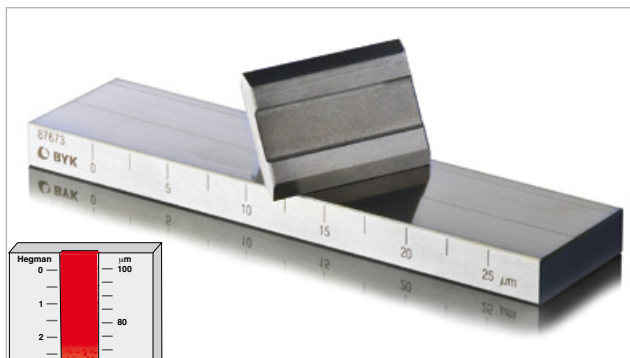
Grind gages are used in controlling the production, storage, and application of dispersion products produced by milling in the paint, plastic, pigment, printing ink, paper, ceramic, pharmaceutical, food, and many other industries.

The Fineness of Grind Gage is a flat steel block in the surface of which are two flat-bottomed grooves varying uniformly in depth from a maximum at one end of the block to zero near the other end. Groove depth is graduated on the block according to one or more scales used for measuring particle size.

Most gages will have one scale marked in either mils or microns.  
 1 mil = 25.4 microns  
 1 mil = 0.001 inch  
 1 micron = 0.001 mm

## Wedge Printing Plates

The Wedge Printing Plate offers a convenient quality check for ink prior to use on the press. The ink can be evaluated for color, gloss, holdout, varnishability, drying time, rub and fade resistance. The plate consists of a precisely made channel of a fixed depth to control the ink film thickness. The channel has a large surface area to evaluate ink properties. The ink is precisely hand-drawn using a scraper. The plate is easy to clean for quick turnaround.



Made of corrosion resistant stainless steel

### Standards

ASTM	D 333, D 1210, D 1316
ISO	1524
FTMS	141a, Method 4411.1

The Hegman scale or National Standard scale may be abbreviated "NS" on the gage. The scale ranges from 0 to 8 with numbers increasing as the particle size decreases.

0 Hegman = 4 mil/100 micron particle size  
 4 Hegman = 2 mil/50 micron particle size  
 8 Hegman = 0 mil/0 micron particle size

BYK-Gardner offers a wide variety of grind gages varying in scales, number of grooves, length and width of grooves and size of the block.



### Ordering Information

Cat. No.	Description
1518	Replacement Scraper, 50 mm
2514	Replacement Scraper, 95 mm
1522	Replacement Scraper, 117 mm

### Accessories

for Grindometers 1509 - 1512
for Grind Gages 2500 - 2517
for Wedge Printing Plates

# Fineness of Grind Gages

## Ordering Information

## Technical Specifications

Cat. No.	Description	Path Size	No. Of Paths	Scales	Range	Dimensions	Net Weight
1509	Grindometer 15*	13 x 130 mm	2	Micron/ Hegman	0 - 15 8 - 6.8	169 x 42 x 13 mm	1 kg (2.2 lbs)
1510	Grindometer 25*	13 x 130 mm	2	Micron/ Hegman	0 - 25 8 - 6	169 x 42 x 13 mm	1 kg (2.2 lbs)
1511	Grindometer 50*	13 x 130 mm	2	Micron/ Hegman	0 - 50 8 - 4	169 x 42 x 13 mm	1 kg (2.2 lbs)
1512	Grindometer 100*	13 x 130 mm	2	Micron/ Hegman	0-100 8 - 0	169 x 42 x 13 mm	1 kg (2.2 lbs)
2500	Grind Gage No. 25	0.5 x 2 in	2	Hegman/ Mils	8 - 0 0 - 5	0.5 x 2.5 x 4.80 in	0.9 kg (2.0 lbs)
2501	Grind Gage No. 45	0.5 x 4 in	2	Hegman/ Mils	8 - 0 0 - 5	0.5 x 2.5 x 6.69 in	1.6 kg (3.5 lbs)
2502	Grind Gage No. 65	0.5 x 6 in	2	Hegman/ Mils	8 - 0 0 - 5	0.5 x 2.5 x 8 in	1.8 kg (4.0 lbs)
2503	Grind Gage No. 5251	0.5 x 5 in	2	Microns/ Mils/ Hegman	0 - 25 0 - 1 8 - 6	0.5 x 2.5 x 6.69 in	1.8 kg (4.0 lbs)
2504	Grind Gage No. 5252	0.5 x 5 in	2	Microns/ Mils/ Hegman	0 - 50 0 - 2 8 - 4	0.5 x 2.5 x 6.69 in	1.8 kg (4.0 lbs)
2505	Grind Gage No. 5254	0.5 x 5 in	2	Microns/ Mils/ Hegman	0-100 0 - 4 8 - 0	0.5 x 2.5 x 6.69 in	1.8 kg (4.0 lbs)
2506	Grind Gage No. 54	2 x 5 in	1	Hegman/ Microns	8 - 0 0-100	0.50 x 3.5 x 6.75 in	3.6 kg (8.0 lbs)
2507	Grind Gage No. 52	2 x 5 in	1	Hegman/ Microns	8 - 4 0 - 50	0.50 x 3.5 x 6.75 in	3.6 kg (8.0 lbs)
2508	Grind Gage No. 51	2 x 5 in	1	Hegman/ Microns	8 - 6 0 - 25	0.50 x 3.5 x 6.75 in	3.6 kg (8.0 lbs)
2509	Grind Gage No. 6251 - G1	1 x 6.25 in	2	Hegman/ Micron/ NPIRI	8 - 6 0 - 25 0 - 10	0.75 x 3.5 x 9.5 in	5.0 kg (11 lbs)
2510	Grind Gage No. 6252 - G2	1 x 6.25 in	2	Hegman/ Microns/ NPIRI	8 - 4 0 - 50 0 - 20	0.75 x 3.5 x 9.5 in	5.0 kg (11 lbs)
2511	Grind Gage No. 6254 - G4	1 x 6.25 in	2	Hegman/ Microns/ NPIRI	8 - 0 0-100 0 - 40	0.75 x 3.5 x 9.5 in	5.0 kg (11 lbs)
2512	Grind Gage No. PD-250	1 x 6.25 in	2	Microns/ Microns	0 - 50 0-250	0.75 x 3.5 x 9.5 in	5.0 kg (11 lbs)
2513	Grind Gage No. PB-20	0.5 x 8 in	2	Mils	0 - 20	0.75 x 2.5 x 9.5 in	3.0 kg (6.5 lbs)
2516	Grind Gage No. 5252-N	12.7 x 127 mm	2	Microns Hegman North	0 - 50 4 - 8 5 - 10	12.7 x 63.5 x 171.5 mm	1.8 kg (4.0 lbs)
2517	Grind Gage No. 5254-N	12.7 x 127 mm	2	Microns Hegman North	0-100 0 - 8 0 - 10	12.7 x 63.5 x 171.5 mm	1.8 kg (4.0 lbs)
1520	Wedge Printing Plate, Warren-2	76.2 x 165.1 mm	1	Mils	0.3	101.6 x 165.1 x mm	3.4 kg (7.4 lbs)
1521	Wedge Printing Plate, Warren-3	76.2 x 165.1 mm	1	Mils	0.4	101.6 x 165.1 x mm	3.4 kg (7.4 lbs)

**Comes complete with:** Grind block, Scraper, Reusable Storage Case

Tolerance range for 1509 - 1512: ± 2.5 microns

**\*Note:** Designed to comply with ISO method 1524

Tolerance range for 2500 - 2517: ±5.1 microns