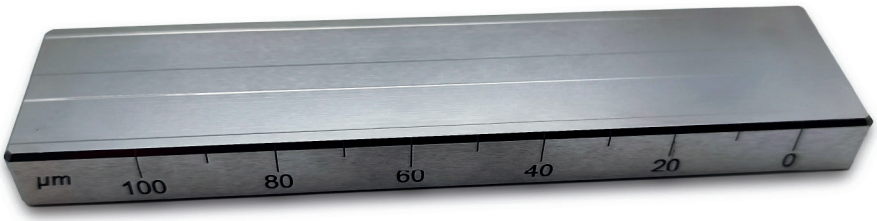
GRAIN FINENESS
HEGMAN GRINDOMETER & PRECISION GRINDOMETER



It is an instrument used to determine the fineness of grinding or the presence of coarse particles or agglomerates in a dispersion.

STANDARDS

UNE EN ISO 1524

APPLICATION

It is used to monitor the production, storage and application of dispersion products produced by grinding in **the paint, plastics, pigments, printing inks, paper, ceramics, pharmaceutical (e.g. creams), food (e.g. chocolate) and many other industries.**

GENERAL CHARACTERISTICS

- It is supplied as a single hardened and ground piece, making it more economical, **lighter and smaller in size**.
- **Made from** corrosion-resistant **stainless steel**. It requires no lubrication or special maintenance, and can therefore also be used with aqueous binders.
- All versions also feature **the Hegman–NS scale**, which prevents incorrect indications of grain fineness.
- It is available with one or two channels, depending on the model selected.
- Calibrated with Hegman (NS) and micrometric (micron) scales. The scales are engraved on the sides. This **simplifies the** cleaning **process**; simply wipe with a cloth.
- **The Hegman 'NS' scale** on the gauge ranges from 0 to 8, with numbers increasing as particle size decreases:
  - 0 Hegman = particle size of 100 microns
  - 4 Hegman = particle size of 50 microns
  - 6 Hegman = particle size of 25 microns
  - 8 Hegman = particle size of 0 microns
- The width of the slots is 12 mm. As for the length, **two versions are available**: a standard version (channel length 149 mm) and a precision version (channel length 185 mm).

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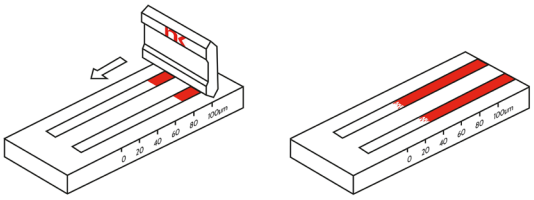
BY NEURTEK

INSTRUCTIONS FOR USE

Immediately after carrying out the spread test, read the measurement result on the NS or micrometric scale at the point indicated in Fig. 3. To do this, the grindometer is usually raised to eye level, and the measurement area is examined obliquely against the light. **One must focus one's attention and read the result where** numerous pigment particles are visible in the thin surface layer. Isolated particles that may occasionally be seen in deeper areas of the groove are disregarded.



Measurement examples fig. 1

For paints containing highly volatile solvents, the reading must be taken within 15 seconds. For synthetic and oil-based enamels, up to one minute is allowed.

As **the grooves can never be filled 100 per cent** – due to viscosity and surface tension – the grindometer cannot be used to compare paints with fundamentally different formulations. In fact, it is also incorrect to state the 'grain fineness' in microns or mils; rather, the 'degree of grinding' should be given **in the conventional NS or FPVPC measurement system.**

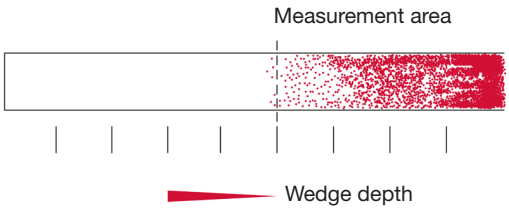


fig. 2

Freshly ground paints that are still hot **must never be placed in a cold grindometer**, as this could easily lead to coagulation of the binder and re-agglomeration of the pigment. Heat the grindometer and the scraper, or better still, allow the freshly ground product to cool.

If ripples form when the paint is spread across the surface, this indicates that the viscosity is too high. Diluting with 10 to 15 per cent of a highly volatile solvent immediately remedies this problem without any risk to the measurement result.

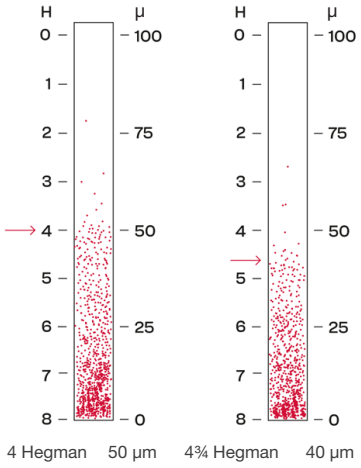


fig. 3

Paints with a run-off time of **less than 15 seconds** in the DIN cup can no longer be tested with the grindometer with the required precision.

After use, the grindometer must **be cleaned thoroughly with a brush** and solvent. Avoid using hard or sharp objects for this purpose.

MODELS AND ACCESSORIES

Hegman Grindometer

UNE EN ISO 1520

HG1320 Dual-Channel

Code	Model	Version	Measuring range		Slot Depth	Scale	Slots	Length
			µ	N S	x fraction			
NK-HG1320-15	15µ	Hegman	0-15	-	1.5µ	125 mm	2	160 mm
NK-HG1320-25	25µ	Hegman	0-25	8-6	2.5µ	125 mm	2	160 mm
NK-HG1320-50	50µ	Hegman	0-50	8-4	5.0µ	125 mm	2	160 mm
NK-HG1320-100	100µ	Hegman	0-100	8-0	10.0µ	125 mm	2	160 mm

The supply includes: Grindometer, hardened scraper and carrying case

Optional calibration	Code	Description
✓	CAL018	ENAC-accredited calibration certificate for the Grindometer

HG1310 Single-Channel

Code	Model	Version	Measuring range		Slot Depth	Scale	Slots	Length
			µ	N S	x fraction			
NK-HG1310-15	15µ	Hegman	0-15		1.5µ	125 mm	1	160 mm
NK-HG1310-25	25µ	Hegman	0-25	1 micron	2.5µ	125 mm	1	160 mm
NK-HG1310-50	50µ	Hegman	0-50	2 microns	5.0µ	125 mm	1	160 mm
NK-HG1310-100	100µ	Hegman	0-100	5 microns	10.0µ	125 mm	1	160 mm

The supply includes: Grindometer, hardened scraper and carrying case

Optional calibration	Code	Description
✓	CAL018	ENAC-accredited Calibration Certificate for Grindometer

PG1330 Precision Grindometer

Dual-Channel

Code	Model	Version	Measuring range		Slots	Length
			µ	N S		
NK-PG1330-25	25µ	Hegman	0-25	1 micra	2	200 mm
NK-PG1330-50	50µ	Hegman	0-50	2 micras	2	200 mm
NK-PG1330-100	100µ	Hegman	0-100	5 micras	2	200 mm

The supply includes: Grindometer, hardened scraper and carrying case

Optional calibration	Code	Description
✓	CAL018	ENAC-accredited calibration certificate for the Grindometer

Available accessories

Code	
NEU-1306600	Grindometer scraper