



Specifications

Standard methods:
depending on the accessories

Measuring range:
up to 80 mm (depending on plunger)

Maximum test load:
2000 g

Data storage:
200 measurements

Data conversion:
¼ and ½ cone to solid cone
NLGI and EN bitumen class

Penetrometer: PNR 12

The modular PNR 12 penetrometer automatically measures the resistance a material provides against being pierced by a specifically shaped penetrator such as a needle, cone, rod or disk.

To assure a high flexibility in application you may choose between test kits for various standards and applications (bitumen, grease, wax, food, cosmetics or pharmaceuticals) or create your own set.

PNR 12 is suitable for consistency and plasticity determinations of pasty, creamy, semi-solid or highly viscous samples.

Accessories: Penetrometer PNR 12

- ▶ **Test kits:** sets acc. to standard/sample requirements incl. needle/cone, plunger, weight, sample container, etc.
- ▶ **Needles:** standard, tapered, pin, Vicat
- ▶ **Cones and discs:** full-, half-, quarter-scale-, micro-, hollow-cones and discs
- ▶ **Rods and rams:** rods, rams, cylinders, cutter, balls, etc.
- ▶ **Plungers and weights:** plungers with or without automatic surface detection sensor, additional load weights
- ▶ **Sample jars and auxiliary equipment:** standard jars, grease jars, wax cylinders, centering devices, etc.
- ▶ **Sample tempering units**
- ▶ **Grease Worker:** micro-cones

Standard methods:

ASTM D5, ASTM D217, ASTM D937, ASTM D1321, ASTM D1403, ASTM D7342, ISO 2137, EN 1426, EN 13880-2, JIS K 2207, JIS K 2235, DIN 51579, European Pharmacopoeia 2.9.9. and more

Fully automatic surface detection:

The force sensor plunger detects a hard sample's surface (like bitumen, waxes, etc.) underneath a layer of water before starting a test automatically.

