

## Breaking-Point - Fraass Method (manual)

EN 12593, IP 80, JIS K2207, NF T66-026 (obs.)

**Product group(s):** Bitumen

**User group(s):** Bitumen, Road Research

**Scope:** To determine the temperature at which a bitumen tends to break rather than to flow when stressed.

The FRAASS-Breaking-Point is the temperature at which the first cracks appear in the coating. It can be applied by any homogeneous road or industrial bitumen.

- Ready-to-Go Unit

### Available:

- Protection Vessel
- Certified Test-Plaques



### Manual Fraass Test Equipment

to be composed of:

- Manual **Breaking-Point Tester**
- **Protection Vessel** (Acryl)

Further available:

### Melting Apparatus

for bitumen samples having a ring & ball softening-point <100°C.

### Technical Data

Dimensions: Ø 12 x 48 cm

Weight: 3 kg

## Main Unit

10-0000

### Manual Breaking-Point Tester, Fraass Method

IP 80 - EN 12 593 (DIN 52 012, NF T66-026) - JIS K2207

Consisting of:

cooling apparatus (test tube, stopper and Dewar-flask with metal stand); bending apparatus with small stopper

Supplied with:

10 test-plaques (41 x 20 x 0.15 mm)  
1 thermometer IP42C

Note: protection vessel for Dewar-flask and tongs are recommended

## Options & Accessories

10-0090	<b>Protection Vessel (Acryl)</b> (inside Ø 125 x 245 mm) for Dewar -flask
10-0233	<b>Tongs to hold handle test-plaques</b>
10-0507	<b>BPM 5 - Melting Apparatus</b> Consisting of: steplessly regulated red heater plate (11 x 9 cm) with thermometer socket; blue cooling plate (11 x 9 cm) (hose connections for a cooler in the rear); holder for a depositing pan Supplied with: 1 thermometer ASTM 2C (-5 to +300 : 1 °C), 1 magnetic test-plaque holder (50 x 40 x 8 mm), 1 cover hood for better tempering of the test-plaques, 1 T-shaped spirit-level, 10 aluminum depositing pans <u>Note:</u> We suggest a connection in series with the BPA and its circulation cooler. <u>Technical Data:</u> Dimensions / Weight : 23 x 40 x 30 cm (W x D x H), 6.5 kg Power supply : 230 V, 50 Hz, EU-plug
10-0506	<b>BPM 5 - Melting Apparatus</b> Like 10-0507 but: Power supply : 115 V, 60 Hz, US-plug
10-0006	<b>Test-Plaques</b> 10 pieces (41 x 20 x 0.15 mm), steel
10-0016	<b>Test-Plaques, with works certificate</b> 10 pieces (41 x 20 x 0.15 mm), steel



## Spare Parts

10-0002	<b>Bending Apparatus</b> Consisting of: two concentric tubes fitted with plaque-holding clips, curved spacer, crank-operated cone-and-peg mechanism, setting screw and rubber stopper
10-0003	<b>Cone-and-Peg Mechanism, hardened and polished</b>
10-0004	<b>Setting Screw , with a hardened tip</b>
10-0008	<b>Test-Tube</b>
10-0009	<b>Dewar-Flask made of borosilicate glass</b> 1-litre, Ø 75 x 205 mm, without stand
20-0106	<b>Metal Stand for Dewar-flask</b>
10-0010	<b>Stopper, (NBR-rubber)</b> Ø 83/71 x 60 mm, bored twice (Ø 15 & 38 mm), to support the test-tube in the Dewar-flask and allow filling at the same time
10-0017	<b>Thermometer IP 42C</b> Range: -38 to +30 : 0.5 °C Length: 370 mm, Immersion: 250 mm, Ø 6.5 mm

## Order Guideline

Minimum equipment:	1x 10-0000, 1x 10-0090
Spares (approx. 1 year):	10-0006, 10-0008, 10-0017
Additional requirements:	funnel, cooling matter