

# **Product Information**

Ottawa cell (OTMS cell)







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#### Applications

- determination of the firmness/tenderness of vegetables
- determination of the hardness/crispness of muesli, cornflakes
- **Specimen material:** vegetables, muesli, cornflakes, similar materials

#### **Ottawa Texture Measuring System (OTMS)**

The Ottawa Texture Measuring System was developed in 1971 by the Engineering Research Service of Agriculture, Canada, under P. Voisey. The test simulates chewing behavior by compressing and displacing the specimen.

#### **Function description**

The Ottawa cell (OMTS cell) is used to approximately simulate chewing behavior. It does so by compressing and extruding the foodstuff specimen.

The cell has an open floor into which various extrusion plates can be inserted.

The round or rectangular plunger moves downwards at a constant speed (e.g. 200 mm/min), compresses the specimen and forces it through the extrusion plate. The result obtained is the force/time or force/displacement curve.

Parameters such as crispness, hardness/firmness, degree of ripeness or extrusion energy can be determined from the type of curve.



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#### **Technical data**

Item No.	320378 <sup>1)</sup>		
Test load, max. (Fmax)	1	kN	
Drip/collecting tray H x W x D	10 x 310 x 180	mm	
Drip/collecting vessel H x W x D	50 x 70 x 76	mm	
Ambient temperature	+10 to +35	°C	
Upper connection	mounting stud, Ø 8 mm		
Lower connection	base crosshead or via conne	base crosshead or via connector, e.g. Item No. 314634	
Included in delivery	drip tray, collecting vessel	drip tray, collecting vessel	

1) A safety guard or safety device is required.

#### **Accessories required**

#### **OTMS** plunger (1 x required)

Description	Item number
70 x 70 mm, Fmax 1 kN, connection Ø 8 mm	320382
49 x 49 mm, including reduction insert, Fmax 1 kN, connection Ø 8 mm	320384
Ø 60 mm, including reduction insert, Fmax 1 kN, connection Ø 8 mm	320386

#### Extrusion plate (1 x required)

Description	Item number
with thin blades, blade width 1 mm, spacing 4 mm, Fmax 0.5 kN	320388
with broad blades, blade width 2.5 mm, spacing 8 mm, Fmax 0.5 kN	320390
with rod blades, blade width 3 mm, spacing 6 mm, Fmax 0.2 kN	320392
with wire blades, blade width 0.3 mm, spacing 4 mm, Fmax 0.05 kN	329394
with perforated plate, hole diameter 6 mm, grid 9mm, Fmax 1 kN	320396

### Sealing plate (alternative to extrusion plate)

Description	Item number
Sealing plate for OTMS cell, Fmax 1kN	320380