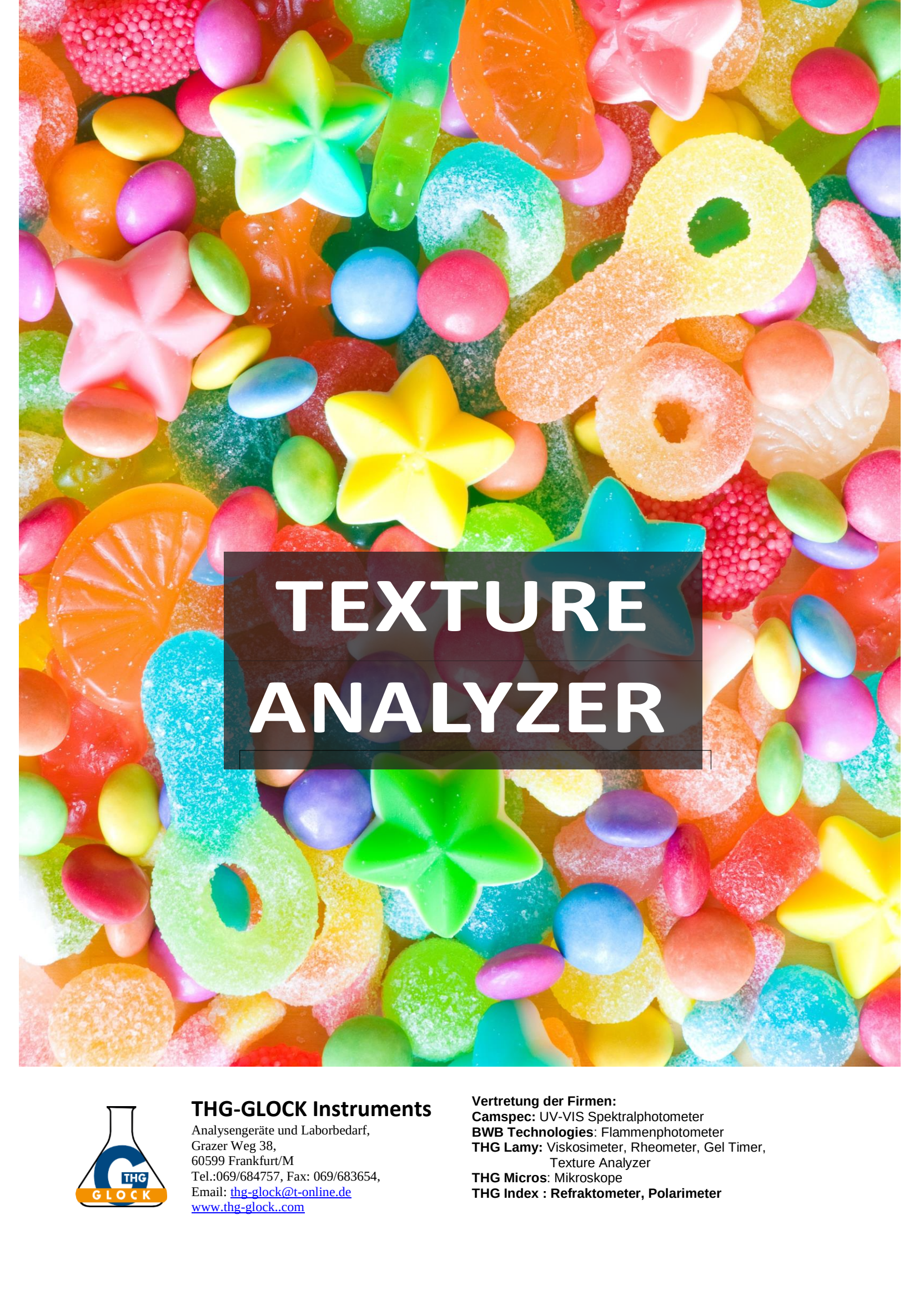




# TEXTURE ANALYZER



## THG-GLOCK Instruments

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### Vertretung der Firmen:

**Camspec:** UV-VIS Spektralphotometer

**BWB Technologies:** Flammenphotometer

**THG Lamy:** Viskosimeter, Rheometer, Gel Timer,  
Texture Analyzer

**THG Micros:** Mikroskope

**THG Index :** Refraktometer, Polarimeter



TEXTURE ANALYZER

- 50 TX-700
- 52 PROBES
- 53 FIXTURES

VERFÜGBARE METHODEN  
FÜR UNSEREN TEXTURE ANALYZER:

| METHODEN             | EIGENSCHAFTEN                                                                                                                                                        | PROBES & FIXTURES                                                                                                                                   | LOAD CELLS                           |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| COMPRESSION          | Compressibility, compactability, springiness, relaxation, crush strength, firmness, elastic, work/load/deflection at rupture, maximum load.                          | Flat probes - Cylindrical probes (p52), TX-FCF (p54), TX-MOF - TX-UPFSF (p55), TX-CTPF (p56).                                                       | 100N -250N -500N (p50-51).           |
| PUNCTURE PENETRATION | Firmness, gel strength, dipping consistency, product toughness, fracture force, 'cake' breaking strength, semi-solid consistency, actuation force.                   | Cylindrical probes - ½ Spherical probes - Spherical probes - Needles - Conical probes (p52), TX-FCF - TX-SAF (p54), TX-MPF - TX-CPF - TX-AVJ (p56). | 10N-20N-50N-100N-250N-500N (p50-51). |
| CUTTING SHEARING     | Bite force, firmness, toughness, shear force.                                                                                                                        | Knife probe - Clever probe - Mesh probe (p52), TX-KFBF - TX-WSF - TX-ECF (p54), TX-VBJF - TX-MP - TX-STF -TX-WBF (p55), TX-TRPF (p56).              | 50N-100N-250N-500N (p50-51).         |
| FRACTURE BENDING     | Brittleness, snapping force, tip strength, flexibility, force to bend, bend modulus, fracture force, flexure modulus.                                                | TX-TPBF - TX-FCF - TX-LCF (p54).                                                                                                                    | 100N-250N-500N (p50-51).             |
| TENSILE              | Tensile strength, tensile 'break point', extensibility, stretchiness, elongation, burst point, tensile modulus, strength and strain to fracture, fracture toughness. | TX-FTF (p54), TX-PTF (p55), TX-KDEF - TX-RTF (p56), TX-RSF (p57).                                                                                   | 10N-20N-50N-100N-250N-500N (p50-51). |
| ADHESION             | Adhesiveness, stickiness, tackiness, peel force, cohesiveness, tailing, stringiness, legging, work of adhesion.                                                      | TX-FCF (p54), TX-UPFSF - TX-DSF (p55), TX-PF90 - TX-GPJF (p56), TX-MAF (p57).                                                                       | 10N-20N-50N-100N-250N-500N (p50-51). |

TX-700

/ The tactile  
texture analyzer /



FEATURES  
AND BENEFITS

- Integrated temperature probe.
- Direct curve on display.
- Inbuilt software for programming.
- Data recording and USB transfer.
- Many different probes and fixtures.
- Interchangeable load sensors.
- Height adjustable tray.
- Compatible with RheoTex software.
- LIMS function.



AVAILABLE INSTRUMENTS

| Reference | Designation                    |
|-----------|--------------------------------|
| N151010   | TX-700 TEXTURE ANALYZER - 10N  |
| N151020   | TX-700 TEXTURE ANALYZER - 20N  |
| N151050   | TX-700 TEXTURE ANALYZER - 50N  |
| N151100   | TX-700 TEXTURE ANALYZER - 100N |
| N151250   | TX-700 TEXTURE ANALYZER - 250N |
| N151500   | TX-700 TEXTURE ANALYZER - 500N |



WHAT'S INCLUDED WITH DEVICE ? *(according to part number)*

1 Interchangeable load sensor / 1 Temperature probe PT100 (-50°C à +300°C) / 1 Height adjustable tray / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.

## SPECIFICATIONS

### Type of device

Texture Analyzer operating in Compression and Tensile with 7" Touch screen

### Choice of sensors

10 N (1 kg), Resolution 0.001 N (0.1 g)  
20 N (2 kg), Resolution 0.001 N (0.1 g)  
50 N (5 kg), Resolution 0.001 N (0.1 g)  
100 N (10 kg), Resolution 0.001 N (0,1 g)  
250 N (20 kg), Resolution 0.01 N (1 g)  
500 N (50 kg), Resolution 0.01 N (1 g)

### Accuracy

+/- 0.5 % of the full scale

### Speed range

From 0.1 to 10 mm/s +/-0.2 %

### Motion

Height: 200 mm / Resolution: 0.1 mm (0,01 mm with RheoTex)

### Temperature Probe

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

### Display

Strength – Speed – Distance – Temperature  
- Time – Measuring probe – Load sensor -  
Date/hour - Choice of strength units: gram or  
Newton

### Languages

French/English/Turkish/German/ Italian

### Security and confidentiality

An «operator» function allows you to enter a username for your instrument. This user must then be identified using a 4-digit code. There is also a protected mode that locks your measurement conditions.

### Supply voltage

90-240 VAC 50/60 Hz

### PC connections

RS232 Port

### Printer connection

USB Host Port -  
Compatible PCL/5

### What benefits are there for you?

Integrated adjustable turntable: diam. 160 mm.  
Table for attaching inserts: 120 x 220 mm.  
Available Operating Modes: Compression – Relaxation – Tensile – TPA Cycle – Penetrometry and relative compression mode also. Large selection of probes available and custom probes can be made with choice of material, shape and size according to your criteria. The TX700 has a large 7" colour touch screen which allows comfortable use and optimal viewing of measurements. Storage of your measuring methods. Data can be backed up and exported using a USB stick. External control thanks to the optional software.

### Dimensions and weight

D610 x W340 x H710 mm  
Weight: 25 kg

## OPTIONS & ACCESSORIES



CALIBRATION KIT (p57)

- Probes (p52-53).
- Fixtures (p53-55).
- Barcode reader (p70).
- Touch screen protector (p70).
- Calibration Kit : 10-20N (Ref. 150060) ; 50-250N (Ref. 150070) ; 500N (Ref. 150080).
- RheoTex software (p72-73).
- Load sensor : 10N (Ref. N150010) ; 20N (Ref. N150020) ; 50N (Ref : N150050) ; 100N (Ref. N150100) ; 250N (Ref. N150250) ; 500N (Ref. N150500).
- Emergency stop button (Ref. 100700)

PROBES

| Name / Material                                                  | Ref.    | Ø<br>(mm)            | Height<br>(mm) | Interest for                                                                                            |                                                                                       |
|------------------------------------------------------------------|---------|----------------------|----------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>½ SPHERICAL PROBE</b><br>316L Stainless Steel                 | 130079  | 8                    | -              | Consistency,<br>elasticity, adhesion and<br>spinning on gel and<br>cream.                               |    |
|                                                                  | 130174  | 16                   |                |                                                                                                         |                                                                                       |
|                                                                  | 130019  | 30                   |                |                                                                                                         |                                                                                       |
|                                                                  | 130049  | 40                   |                |                                                                                                         |                                                                                       |
|                                                                  |         |                      |                |                                                                                                         |                                                                                       |
| <b>FLAT PROBE</b><br>316L Stainless Steel                        | 130080  | 34                   | -              | Consistency,<br>elasticity, adhesion and<br>spinning on a solid of<br>size smaller than the<br>plateau. |    |
|                                                                  | 130083  | 40                   |                |                                                                                                         |                                                                                       |
|                                                                  | 130101  | 50                   |                |                                                                                                         |                                                                                       |
|                                                                  | 130175  | 75                   |                |                                                                                                         |                                                                                       |
|                                                                  | 130200  | 100                  |                |                                                                                                         |                                                                                       |
|                                                                  | 130177  | 160                  |                |                                                                                                         |                                                                                       |
| <b>BLOOM PROBE</b><br>plexiglass                                 | 130046  | 12.7                 | 30             | Bloom Gel<br>Strength test                                                                              |    |
| <b>CYLINDRICAL PROBE</b><br>316L Stainless Steel<br>or Aluminium | 130077  | 2                    | 35             | Measure in texture<br>penetration on solid<br>sample                                                    |    |
|                                                                  | 130063  | 3                    | 35             |                                                                                                         |                                                                                       |
|                                                                  | 130078  | 4                    | 35             |                                                                                                         |                                                                                       |
|                                                                  | 130066  | 6                    | 35             |                                                                                                         |                                                                                       |
|                                                                  | 130124  | 10                   | 40             |                                                                                                         |                                                                                       |
|                                                                  | 130099  | 20                   | 40             |                                                                                                         |                                                                                       |
|                                                                  | 130037  | 25                   | 40             |                                                                                                         |                                                                                       |
|                                                                  | 130176  | 36                   | 40             |                                                                                                         |                                                                                       |
|                                                                  | 130126  | 50                   | 50             |                                                                                                         |                                                                                       |
| <b>CONICAL PROBE</b><br>316L Stainless Steel                     | 130020  | 25                   | 20° Cône       | Measurement in<br>consistency<br>penetration on solid<br>sample (spreading)                             |  |
|                                                                  | 130047  | 30                   | 45° Cône       |                                                                                                         |                                                                                       |
|                                                                  | 121023  | 30                   | 30° Cône       |                                                                                                         |                                                                                       |
|                                                                  |         |                      |                |                                                                                                         |                                                                                       |
| <b>NEEDLE</b>                                                    | 130179  | 3                    | 60             | Core consistency                                                                                        |  |
| <b>CLEAVER PROBE</b><br>316L Stainless Steel                     | 130064R | L. 25<br>mm          | 60° Angle      | Breaking Force,<br>Knack                                                                                |  |
| <b>SPHERICAL PROBE</b><br>316L Stainless Steel                   | 130191  | 12,7                 | -              | Consistency,<br>elasticity and<br>adhesion on soft<br>to strong sample                                  |  |
|                                                                  | 130134  | 19,5                 |                |                                                                                                         |                                                                                       |
|                                                                  | 130149  | 20                   |                |                                                                                                         |                                                                                       |
| <b>MESH PROBE</b>                                                | 130158R | 50mm<br>(adjustable) | -              | Consistency of product<br>with big particle as<br>yogurt, sauce, jam.                                   |  |
| <b>KNIFE PROBE</b>                                               | 120012R | -                    | -              | Cutting force.                                                                                          |  |

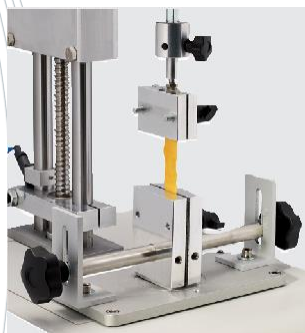
More size and material on request ( Aluminium, PEEK, DELRIN, PMMA)

FIXTURES

|                                                       |  |  |  |  |  |  |
|-------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| WARNER-BRATZLER FIXTURE (TX-WBF)                      | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| WIRE SHEAR FIXTURE (TX-WSF)                           |                                                                                   | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   |                                                                                     |
| LIPSTICK CANTILEVER FIXTURE (TX-LCF)                  | •                                                                                 | •                                                                                 | •                                                                                  | •                                                                                   |                                                                                     |                                                                                     |
| FILM COMPRESSION FIXTURE (TX-FCF)                     | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| KRAMER 5 BLADES FIXTURE (TX-KFBF)                     | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     | •                                                                                   |
| 3 POINTS BEND FIXTURE (TX-TPBF)                       | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| FILM TENSILE FIXTURE (TX-FTF)                         | •                                                                                 | •                                                                                 | •                                                                                  | •                                                                                   | •                                                                                   |                                                                                     |
| EXTRUSION FIXTURE (TX-ECF)                            |                                                                                   | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   |                                                                                     |
| SYRINGE ACTUATOR FIXTURE (TX-SAF)                     | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| KIEFFER DOUGH EXTENSIBILITY FIXTURE (TX-KDEF)         |                                                                                   | •                                                                                 | •                                                                                  | •                                                                                   | •                                                                                   |                                                                                     |
| SLIDING FRICTION FIXTURE (TX-SFF)                     | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   |                                                                                     |
| SPREAD TEST FIXTURE (TX-STF)                          | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| MINI OTTAWA FIXTURE (TX-MOF)                          | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| UNCOOKED PASTA FIRMNESS/STICKINESS FIXTURE (TX-UPFSF) | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| VOLODKEVICH BITE JAWS FIXTURE (TX-VBJF)               | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| MOHRS PROBE (TX-MP)                                   | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| DOUGH STICKINESS FIXTURE (TX-DSF)                     | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| PASTA TENSILE FIXTURE (TX-PTF)                        | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| MULTIPLE PROBE FIXTURE (TX-MPF)                       | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| THREE RINGS PROBE CUTTING (TX-TRPF)                   | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   |                                                                                     |
| COMPRESSION TOP PLATE FIXTURE (TX-CTPF)               | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| CONFECTIONARY PENETRATION FIXTURE (TX-CPF)            | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   | •                                                                                   |
| ADJUSTABLE VICE FIXTURE (TX-AVJ)                      | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   |                                                                                     |
| 90° PEEL FIXTURE (TX-PF90)                            | •                                                                                 | •                                                                                 |                                                                                    | •                                                                                   | •                                                                                   |                                                                                     |
| ROLLER TENSILE FIXTURE (TX-RTF)                       | •                                                                                 | •                                                                                 |                                                                                    | •                                                                                   | •                                                                                   |                                                                                     |
| GENERAL PEELING JIG FIXTURE (TX-GPJF)                 |                                                                                   | •                                                                                 |                                                                                    | •                                                                                   | •                                                                                   |                                                                                     |
| RAFT STRENGTH FIXTURE (TX-RSF)                        |                                                                                   | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   |                                                                                     |
| MUCO ADHESION FIXTURE (TX-MAF)                        | •                                                                                 | •                                                                                 |                                                                                    | •                                                                                   | •                                                                                   | •                                                                                   |
| BLOOM PROBE (TX-BLM)                                  | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| MESH PROBE (TX-MESH)                                  | •                                                                                 | •                                                                                 |                                                                                    |                                                                                     | •                                                                                   | •                                                                                   |
| KNIFE PROBE (TX-CKA)                                  |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |



## FIXTURES



**TX-FTF : FILM  
TENSILE FIXTURE**  
(Ref. 130092R)

Measure tensile strength  
of film.



**TX-TPBF : 3 POINTS  
BEND FIXTURE**  
(Ref. 130091R)

Breaking strength, Friability,  
Springiness.



**TX-KFBF :  
KRAMER 5 BLADES  
FIXTURE**  
(Ref. 130094R)

Hardness and tenderness  
on small samples  
(Requires table TX-FBT).



**TX-FCF : FILM  
COMPRESSION FIXTURE**  
(Ref. 130031R)

Accessory to measure  
strength of film  
(Requires table TX-FBT).



**TX-LCF : LIPSTICK  
CANTILEVER FIXTURE**

Accessory to measure  
strength of lipstick.



**TX-WSF :  
WIRE SHEAR FIXTURE**  
(Ref. 130076R)

Accessory to measure  
consistency of product  
as Butter or Cheese.



**TX-SAF : SYRINGE  
ACTUATOR FIXTURE**  
(Ref. 130145)

Study of needed strength  
to use syringe.



**TX-FBT : FIXTURE  
BASE TABLE**  
(Ref. 310106R)

Universal holder  
for fixture and sample.



**TX-ECF : EXTRUSION  
CELL FIXTURE**  
(Ref. 100200)

Forward and backward  
extrusion of liquid, cream,  
paste, gel  
(Requires table TX-FBT).

## FIXTURES



### TX-MOF : MINI OTTAWA FIXTURE

(Ref. 130097)

Hardness and tenderness on  
small samples.  
(Requires table TX-FBT).



### TX-UPFSF : UNCOOKED PASTA FIRMNESS/ STICKINESS FIXTURE

(Ref. 130152R)

Firmness and stickiness of  
uncooked pasta  
(Requires table TX-FBT).



### TX-VBJF : VOLODKEVICH BITE JAWS FIXTURE

(Ref. 130068)

Shear cut and bite test.  
(Requires table TX-FBT).



### TX-MP : MOHRS PROBE

(Ref. 130165R)

Cutting test with blade  
for meat, fish...  
(Included 10 blades)



### TX-SFF : SLIDING FRICTION FIXTURE

(Ref. 120013R)

Friction measurement  
according to ASTM D1894.



### TX-DSF : DOUGH STICKINESS FIXTURE

(Ref. 121017)

Measure of dough stickiness.  
(Requires table TX-FBT).



### TX-PTF : PASTA TENSILE FIXTURE

(Ref. 130168R)

Measure of noodle  
elasticity and rupture.



### TX-STF : SPREAD TEST FIXTURE

(Ref. 130157R)

Measure of the spreading ca-  
pacity of creams, pastes  
and gels.  
(Requires table TX-FBT).



### TX-WBF : WARNER-BRATZLER FIXTURE

(Ref. 130074R)

Cutting blade fine.  
(Included 2 blades).



# FIXTURES



**TX-TRPF : THREE RINGS PROBE CUTTING FIXTURE**  
(Ref. 130186)

Measure firmness of sample as pasta, rice, corn...



**TX-KDEF : KIEFFER DOUGH EXTENSIBILITY FIXTURE**  
(Ref. 130148)

Measure of dough elasticity and rupture  
(Requires table TX-FBT).



**TX-CTPF : COMPRESSION TOP PLATE FIXTURE**  
(Ref. 130153)

Measure firmness by uniform compression.  
(Requires table TX-FBT).



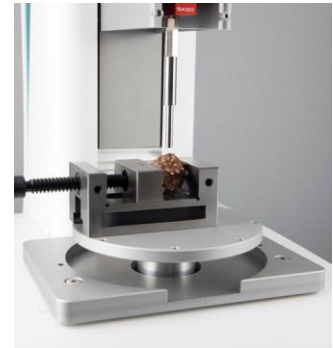
**TX-MPF : MULTIPLE PROBE FIXTURE**  
(Ref. 130170R)

Probe for puncture on 9 sample.  
(Requires table TX-FBT).



**TX-CPF : CONFECTIONARY PENETRATION FIXTURE**  
(Ref. 130190)

To hold small sample or candies while penetration test  
(Requires table TX-FBT).



**TX-AVJ : ADJUSTABLE VICE FIXTURE**  
(Ref. 130208)

To hold sample as vegetables, jelly or sweets for Puncture test.



**TX-PF90 : 90° PEEL FIXTURE**  
(Ref. 130051R)

Measure adhesive strength to pull tape with angle 90°.



**TX-RTF : ROLLER TENSILE FIXTURE**  
(Ref. 130194)

Measure tensile strength of fragile film thanks to grip of rollers.



**TX-GPJF : GENERAL PEELING JIG FIXTURE**  
(Réf. 310105R)

Measure strength to remove lid from sealed container with angle 0°-45°-90°.

FIXTURES



**TX-RSF : RAFT STRENGTH  
FIXTURE**  
(Ref. 130021)

Measures strength to remove wire  
raft hook from sample.



**TX-MAF : MUCO ADHESION  
FIXTURE**  
(Ref. 130181)

Measures natural adhesiveness  
between a tablet  
and a mucous membrane.

**CALIBRATION KIT**



10-20N (Ref. 150060)  
50-250N (Ref. 150070)  
500N (Ref. 150080).

**8 PROBES KIT**  
(Ref. 130166)



| Reference | Designation                          |
|-----------|--------------------------------------|
| 121023    | CONICAL PROBE 30°                    |
| 130019    | 1/2 SPHERICAL PROBE DIAMETER 30 mm   |
| 130037    | CYLINDRICAL PROBE H:40 mm Diam:25 mm |
| 130064    | CLEAVER PROBE 25 mm                  |
| 130077    | CYLINDRICAL PROBE DIAMETER 2 mm      |
| 130079    | 1/2 SPHERICAL PROBE DIAMETER 8 mm    |
| 130101    | FLAT PROBE DIAMETER 50 mm            |
| 130124    | CYLINDRICAL PROBE DIAMETER 10 mm     |

**WE CAN ALSO MAKE CUSTOMISED  
PROBES AND FIXTURES ON REQUEST.**