



# TEXTURE ANALYZER

- 50 TX-700
- 52 PROBES
- 53 FIXTURES

## AVAILABLE METHODS FOR OUR TEXTURE ANALYZER:

METHODS	PROPERTIES	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



CALIBRATION KIT (p57)

## OPTIONS & ACCESSORIES

- 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)











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 INSTRUMENTS

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# PROBES

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

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







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# 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).

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# 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**  
(Ref. 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.**



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