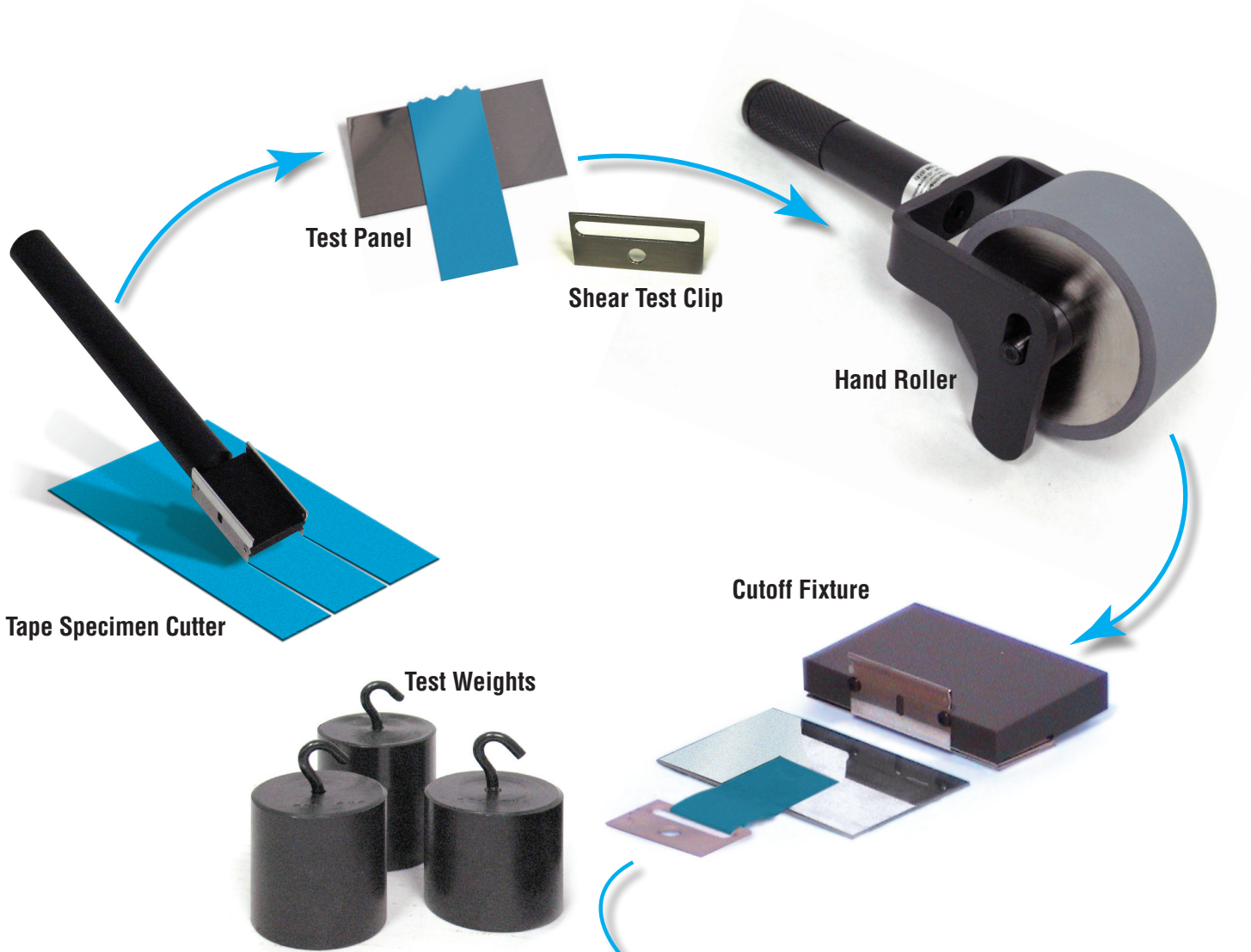


Integrated 8 Bank Shear and Oven SS-OSI-8

Combining the benefits of our proven shear tester and our powerful shear test oven in one convenient package is the Integrated 8 Bank Shear Tester and Oven. Additional features include the following:

- Rugged construction, capable of withstanding the abuse of a production environment
- Compact and easy to use
- High temperature, 8' long (2.5 m), cable interfaces the switch unit to the oven
- Designed to use standard 2" x 3" (50 mm x 75 mm) format test panels
- Capable of holding panels up to 0.25" (6 mm) thick
- Switch unit components can withstand temperatures of 400°F (204°C)
- Mechanical switches can be calibrated to trip when using weights as low as 100 grams
- Adjustable feet to level the testing plane
- Adjustable panel rack marked for the standard 178° back tilt
- Switch unit operating temperature range of 32°–400°F (0°–204°C)
- 3 pattern, 30 step programmable controller capable of maintaining 10 different programs
- Capable of performing SAFT tests
- Maximum oven temperature of 500°F (260°C)
- Temperature control accuracy of oven $\pm 0.5^\circ\text{F}$ at 410°F (1°C at 210°C)
- Temperature distribution accuracy of oven $\pm 1.5^\circ\text{F}$ at 500°F (2.8°C at 260°C)
- The switch unit of the 8 Bank Shear fills approximately 50% of the interior oven volume
- Timer controls are mounted and wired permanently into the face
- Two oven connection points are wired for either internal or external use of the switch unit
- Stainless steel oven interior construction of the oven
- Forced-air circulation type oven (convection)
- Vent hole in oven for accessory access
- Oven is equipped with 2 stainless steel shelves with 12 possible positions
- Viewing window in the door
- Easy-open oven door latch minimizes testing disruption
- Over-temperature protection and other electroc safety features
- Standard oven input voltage of 240 VAC (50 Hz)





Tape Specimen Cutter: A double razor blade specimen cutter slices samples to a precise 1" width. Other sizes available.

Test Panel: Standard size for all ChemInstruments Shear Testers. Items meet PSTC and ASTM specifications.

Shear Test Clip: Designed to evenly distribute weight over the width of the sample.

Hand Roller: Used to laminate samples to test panels.

Cutoff Fixture: Used to quickly and consistently create 1" x 1" sample for testing. Other sizes available.

Test Weights: Standard and custom sizes available.



Rolldown Machines

RD-1000
RD-3000

The Rolldown Machines laminates an adhesive coated material to a test substrate. The prepared sample can then be used in a number of different test procedures. The mechanics of the Rolldown Machine ensures that test samples are prepared at a stable laminating speed and with consistent pressure. The single roll version prepares one sample at a time, while the triple roll version reduces sample preparation time by accommodating three samples at a time. Both machines meet the requirements of PSTC Appendage B, Section 2.7, and ASTM D 3330 Section 5.4. The Rolldown Machines are a must for any development or QC laboratory that wishes to ensure the highest quality data through properly prepared samples. Additional features include the following:

- Rugged construction, capable of withstanding the abuse of a production environment
- Simple, one-touch operation creates repeatable test samples

- 4.5 lb (2 Kg) steel roll with Shore A scale 80 durometer rubber covering
- Steel roll is nickel plated to eliminate corrosion
- Rubber covering of 1/4" (6 mm)
- Finished roll dimensions of 1.78" x 3.75" (4.5 cm x 9.5 cm)
- Maximum roll of 10 lb (4.5Kg) (requires custom bracket)
- Selectable set speeds include older laminating speed of 12 ipm (30 cpm) and newer "harmonized" speed of 24 ipm (60 cpm)
- Accepts test panels up to 2" x 8" (5 cm x 20 cm)
- Adjustable stroke length of 1"-10" (2 cm - 25 cm)
- Capable of selecting of 1-9 repeat cycles
- Continuous cycling mode capability
- Operating temperature range of 32°-150°F (0°-70°C)
- Standard input voltage of 120 VAC (60 Hz)
- FINAT version available



Hand Rollers

HR-100
HR-102
HR-FINAT

4.5 lb Hand Roller & 10 lb Hand Roller

- 4.5 lb (2045 gram) roller features a steel core with a Shore scale A 80 durometer silicone rubber cover; 3.75" x 1.75" (95 mm x 45 mm)
- 10 lb (4540 g) roller features a solid steel core with an 8 RMS polished surface; 5" x 1.75" (127 mm x 45 mm)
- Legs on handle extend beyond the circumference of the roller to protect roller surface
- Slots on handle allow roller axles to "float" the weight of the roller during operation
- Meets the requirements of PSTC Appendage B, 2.8, and other industry standards

FINAT Hand Roller

- 2 Kg (4.4 lb) roller features a steel core with a Shore scale A 80 durometer silicone rubber cover
- 3.34" x 1.97" (85 mm x 50 mm)
- Legs on handle extend beyond the circumference of the roller to protect roller surface
- Slots on handle allow roller axles to "float" the weight of the roller during operation
- Meets the requirements of FINAT standard 2.1

Custom design rollers made to nearly any specification



Optional Certification Available

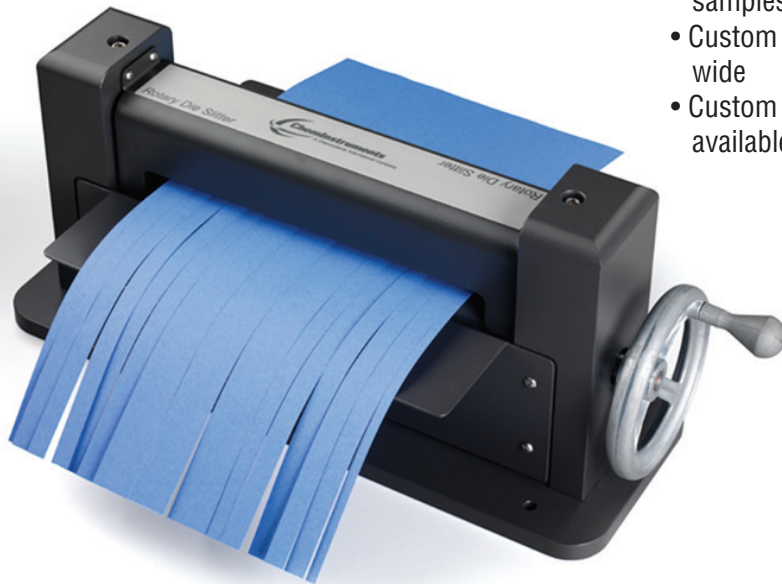
Rotary Die Slitter

RDS-100

Quickly produce consistent and accurately cut samples with the Rotary Die Slitter. The hand-operated machine safely cuts multiple straight and even samples efficiently and easily. Make this tool an integral part of your sample preparation for plants and laboratories.

Additional features include the following:

- Rugged construction, capable of withstanding the abuse of a production environment
- Uses a hardened rotary die for accuracy and durability
- Fully guarded with a narrow nip opening for safe handling
- Suitable for slitting material such as paper, film, foil, and laminates up to 9" (22.8 cm) wide and 0.060" (1.5 mm) thick
- Produce samples of unlimited length
- Produces six 1" (25 mm) samples and six 0.5" (12mm) samples
- Custom dies available to produce sample widths up to 9" wide
- Custom machines to accommodate greater widths available on request



Swing Arm Sample Die Cutter

DC-500

The Swing Arm Sample Die Cutter is ideal for producing samples from paper, film, foil, label, tape, and other materials. The Die Cutter employs a safe, manually-operated, cam-actuated cutting stroke to produce samples with standard Steel Rule and Clicker dies. This simple machine eliminates the risk of injury associated with hammering hand-held dies when making samples.

Additional features include the following:

- Rugged construction, capable of withstanding the abuse of a production environment
- Quick and Easy-to-operate and maintain
- Upper platen dimensions of 8" x 8" (20 cm x 20 cm)
- Lower platen dimensions of 9" x 11" (23 cm x 28 cm)
- Durable and replaceable lower platen cutting pad made of nylon

- Easy adjustment for stroke and height changes
- Upper platen and leverage arm swing away for easy access during setup
- Mounts to work table for hazard-free operation
- Single cavity Clicker dies available in standard and custom shapes (not included)
- Multiple cavity Clicker dies available in custom shapes (not included)
- Various tolerance dies available of $\pm 0.005"$ – $\pm 0.015"$ (0.127 mm – 0.381 mm)



Specimen Tape Cutters

SC-100
SCF-100

These specimen tape cutters simplify cutting samples for ASTM, FINAT, PSTC Appendage B, 2.4, AFERA and TLMI procedures. Extra blades and custom sample cutters are available. Contact ChemInstruments for more information about custom designs.

Specimen Tape Cutters

- 1" Specimen Tape Cutter
- 1/2" Specimen Tape Cutter
- 24 Mm Specimen Tape Cutter
- 12 Mm Specimen Tape Cutter

Shear Cutoff Fixture

- Quickly and accurately cut a shear sample to a 1" x 1" (2.5 cm x 2.5 cm) contact area
- Meets the requirements of ASTM, FINAT, PSTC, AFERA, and TLMI standards
- 1/2" x 1/2" (1 cm x 1 cm) fixture available upon request



Accessories

Adhesive Remover

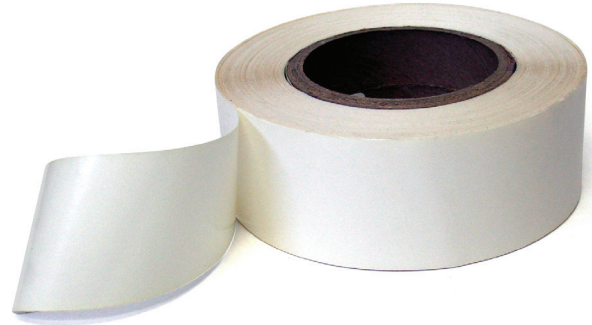
A unique water-soluble solvent-based cleaner of exceptional dissolving power.



ADH-REM

Double Sided Tape

A versatile two-sided tape used in conducting release and coefficient of friction testing.

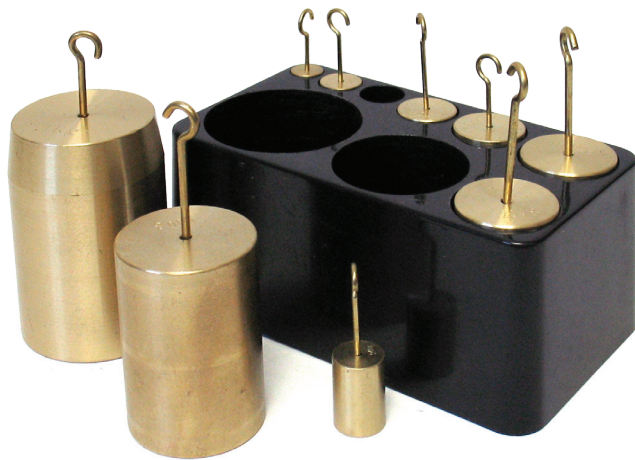


DS Tape

TW-CAL Test Weight Calibration Set

This set, with hooks, includes a selection of weights from 10-1000 grams with NIST traceable certificate.

TW-CAL SET



Water Vapor Cup

The sturdy cast aluminum Water Vapor Cup is used in the test method standards PSTC-34 and ASTM D 3833 water vapor transmission, and PSTC-35 and ASTM D 3816 water penetration.

WV-100



Test Panels

The 304 stainless steel meets the requirements for ASTM A666, PSTC Appendage B, and AFERA specifications. The 18 gauge panels have a bright annealed finish and are cut to size for various test methods. All stainless steel panels are 0.047" (1.2 mm) thick.

Standard sizes include the following:

Loop Tack

TP-16: 1" x 6" (2.5 cm x 15 cm)

TP-13: 1" x 3" (2.5 cm x 7.5 cm)

Shear

TP-23: 2" x 3" (5 cm x 7.5 cm)

Adhesion

TP-25: 2" x 5" (5 cm x 13 cm)

TP-26: 2" x 6" (5 cm x 15 cm)

TP-28: 2" x 8" (5 cm x 20 cm)

TP-39: 3" x 9" (7.5 cm x 23 cm)

Specialized Panels*

Acrylic: 1/8" (0.3 cm) thick

ABS Plastic: 1/8" (0.3 cm) thick

Aluminum: 0.04" (0.1 cm) thick

Co-Polyester (PETG): 1/8" (0.3 cm) thick

Glass: 1/8" (0.3 cm) thick

High Density Polyethylene (HDPE): 1/8" (0.3 cm) thick

Low Density Polyethylene (LDPE) 1/4" (0.5 cm) thick

Plastics: 1/8" (0.3 cm) thick

Polycarbonate(PC): 1/8" (0.3 cm) thick

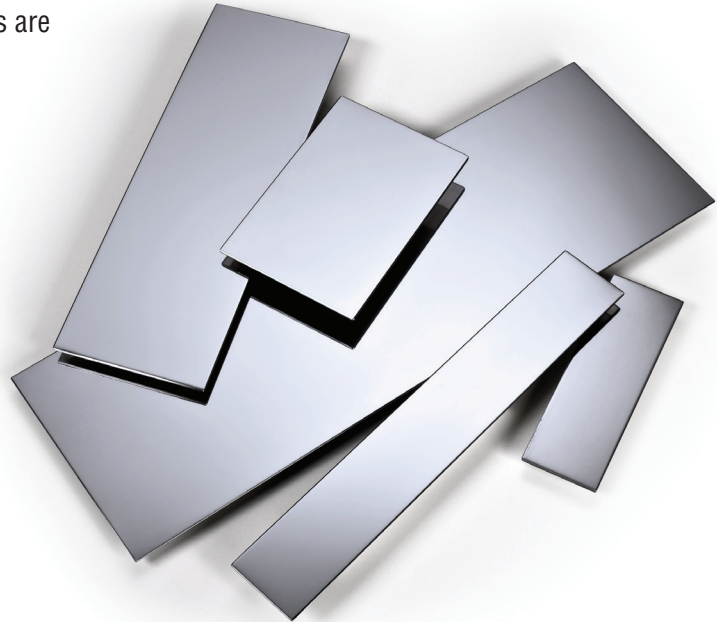
Polypropylene (PP): 1/8" (0.3 cm) thick

Polystyrene(PS): 1/8" (0.3 cm) thick

Polyvinylchloride (PVC): 1/8" (0.3 cm) thick

**Specialized Panels do not meet ASTM D 3330 Specs.*

Standard panel sizes, as well as custom dimensions, are available in the above materials.



Test Panel Holder: Wooden holder with 22 angled slots to hold panels between tests.

Dimensions: 16" x 3.5" (41 cm x 9 cm).

Equipment Specifications

Model number	Height	Width	Depth	Weight
--------------	--------	-------	-------	--------

Adhesion/Release

AR-1000	24" (61 cm)	36" (91 cm)	13" (33 cm)	92 lbs (42 Kg)
PA-1000-180	8" (20 cm)	23" (58 cm)	12" (30 cm)	29 lbs (13 Kg)
PA-1000-90	25" (63 cm)	18" (46 cm)	10" (25 cm)	45 lbs (20 Kg)
HSR-1000	14" (35 cm)	21" (53 cm)	11" (28 cm)	30 lbs (14 Kg)

Tack

LT-1000	16" (40 cm)	12" (30 cm)	15" (38 cm)	37 lbs (17 Kg)
PT-1000	16" (40cm)	12" (30 cm)	15" (38 cm)	37 lbs (17 Kg)
RBT-100	2.5" (6.5 cm)	9" (23 cm)	2.5" (6.5 cm)	1 lb (0.5 Kg)

Material Analysis

TT-1100	48" (122 cm)	13" (33 cm)	16" (41 cm)	54 lbs (25 Kg)
PMA-1000	22" (56 cm)	14" (36 cm)	18" (46 cm)	55 lbs (25 Kg)
CAM-Plus (main body)	15" (38 cm)	8" (20 cm)	18" (45 cm)	28 lbs (12.7 Kg)
CAM-Plus (light source)	5" (12.7 cm)	7" (18 cm)	8" (20 cm)	12 lbs (5.4 Kg)
BP-1000	11" (28 cm)	14" (36 cm)	18" (46 cm)	29 lbs (13 Kg)
COF-1000	8" (20 cm)	23" (58 cm)	12" (30 cm)	29 lbs (13 Kg)
MI-1000	12" (30 cm)	8" (20 cm)	10" (25 cm)	17 lbs (8 Kg)
HSU-1100	15" (38 cm)	25" (63 cm)	18" (45 cm)	59 lbs (26 Kg)
SR-500	13" (33 cm)	11" (28 cm)	8" (20 cm)	45 lbs (20 Kg)

Coaters & Laminators

EC-100	7" (18 cm)	12" (30 cm)	22" (56 cm)	18 lbs (8 Kg)
EC-200	7" (18 cm)	15" (38 cm)	22" (56 cm)	30 lbs (13 Kg)
LC-100	18" (46 cm)	19" (48 cm)	22" (56 cm)	55 lbs (25 Kg)
HLC-101 (coating head)	18" (46 cm)	16" (41 cm)	18" (46 cm)	42 lbs (19 Kg)
HLC-101 (control box)	9" (23 cm)	16" (41 cm)	9" (23 cm)	17 lbs (8 Kg)
HLCL-1000	22" (56 cm)	33" (84 cm)	37" (94 cm)	160 lbs (73 Kg)
LL-100	18" (46 cm)	37" (94 cm)	11" (28 cm)	64 lbs (29 Kg)
HL-100	30" (76 cm)	39" (99 cm)	14" (36 cm)	185 lbs (84 Kg)

Model number	Height	Width	Depth	Weight
--------------	--------	-------	-------	--------

Shear

DS-1000	9" (23 cm)	14" (36 cm)	18" (46 cm)	29 lbs (13 Kg)
SS-RT-10	18" (46 cm)	39" (99 cm)	7" (18 cm)	43 lbs (19 Kg)
SS-HT-8 (oven unit)	16" (41 cm)	16" (41 cm)	9" (23 cm)	28 lbs (13 Kg)
SS-HT-8 (timer box)	3" (8 cm)	11" (28 cm)	9" (23 cm)	3 lbs (1.36 Kg)
S-O-8 (exterior)	34" (87 cm)	28" (71 cm)	25" (65 cm)	143 lbs (65 Kg)
S-O-8 (interior)	19" (48 cm)	23" (58 cm)	19" (48 cm)	NA
SS-OSI-8 (exterior)	34" (87 cm)	28" (71 cm)	25" (65 cm)	143 lbs (65 Kg)
SS-OSI-8 (interior)	19" (48 cm)	23" (58 cm)	19" (48 cm)	NA
S-OSI-8 (oven unit)	16" (41 cm)	16" (41 cm)	9" (23 cm)	28 lbs (13 Kg)
SS-HT-30 (oven unit)	22" (57 cm)	38" (96 cm)	13" (32 cm)	90 lbs (41 Kg)
SS-HT-30 (timer box)	3" (8 cm)	11" (28 cm)	9" (23 cm)	3 lbs (1.36 Kg)
S-O-30 (exterior)	43" (108 cm)	47" (119 cm)	25" (65 cm)	295 lbs (134 Kg)
S-O-30 (interior)	31" (80 cm)	40" (104 cm)	19" (50 cm)	NA

Sample Preparation

RD-1000	9" (23 cm)	19" (48 cm)	13" (33 cm)	37 lbs (17 Kg)
RD-3000	9" (23 cm)	19" (48 cm)	13" (33 cm)	47 lbs (21 Kg)
RDS-100	8" (20 cm)	20" (51 cm)	9" (23 cm)	35 lbs (16 Kg)
DC-500	31" (79 cm)	12" (30 cm)	14" (36 cm)	104 lbs (47 Kg)

Test Matrix

TYPE	DESCRIPTION	TEST METHOD					EQUIPMENT	ACCESSORIES
		PSTC	TLMI	ASTM	AFERA	FINAT		
Peel & Release	90° & 180° Peel/Release	101 (A,B,C, D,E,F) 4B	L-IA1 L-IA2 L-IA3	D3330 (A,B,C, D,E,F) D5375 (A&B) D6252	5001 P11	1, 2, 3, 5, 10, 11	AR-1000 PA-1000-90 PA-1000-180 or TT-1100	RD-3000 HR-100 TP-26 SC-100
	Oil Resistance	55					S-O-8 TT-1100 AR-1000	TP-26 HR-100 PF-90
	Wet Spread	15					LC-100 S-OSI-8 TT-1100 AR-1000	
High-Speed Release	Release Force of Liner at High Speed		L-1A3			4	HSR-1000	NA
Tack	Loop Tack	16B *(1)	Yes	D6195 (A) *(1)		9 *(1)	TT-1100 LT-1000	TP-13/16 SC-100 LTF-100
	Probe Tack			D2979			PT-1000	NA
	Rolling Ball	6		D3121			RBT-100	NA
	Quick Stick	5			4015		TT-1100	PF-90
Dynamic Shear	Shear at Ambient Temperature	14, 107 (A,B,C,D, E, F)	7	D6463 (B) D3654 (A)	5012	8	S-RT-10 S-RT-30	HR-100 TP-23 SC-050 SC-100 TW-500 TW-1000
Heated Shear	Shear at Elevated Temperatures	53, 107 (G)	Yes	D6463 (A) D4498			S-HT-30 & S-HT-8 or S-O-8	
	Shear after Solvent Temperatures	50					TT-1100 S-O-8	HR-100
Thickness	Thickness Measurement	33	T-411	D3652 D645 D374	5006		MI-1000	NA
Unwind	High Speed Unwind Force	8, 13		D1000	4008		HSU-1100	NA
	Unwind Force	8			4013		TT-1100	UWF-100
Tensile	Tensile Strength of Material	31 & 39	L-1A1 II-E III-A T4940M	D928 D903 D3330 D882 1004 D3759	5004		TT-1100	NA
	Elongation				4005			
Burst	Burst Strength of Perforated Material		Yes				BP-1000	NA
COF	Coefficient of Friction			D1894			COF-1000	NA
Rub	Scuffing or Rubbing Resistance			D-5264			Sutherland® Rub Tester	NA

*(1) sample adjusted to 5" (130 mm) in length