AMERICAN SLIP METER®

INDUSTRIAL MEASURING DEVICES

Your Digital Gauge
to Floor Safety

OPERATING INSTRUCTIONS INFORMATION

ASM 825A Digital Slip Meter

Model ASM 825A

FOR ASSISTANCE CALL

941-681-2431

EASTERN TIME ZONE

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www.americanslipmeter.com

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(Recommend 9 volt Alkaline or Lithium Ion Battery Replacement. Check airline restrictions if using a Lithium Ion battery.)

BACKGROUND ON SLIP METERS

Many types and designs of tribometers, known as slip meters or friction measuring devices, have been developed over the years. Most are bulky, cumbersome designs and have limitations or restrictions to fit in an area to be tested. Most are not intended for actual use in field-testing, but rather are designed for laboratory testing.

Different theories and opinions have filled reports, studies and books for years. There are debates of what type of friction should be tested but since the beginning of developing COF test instruments, drag sled static coefficient of friction testing has been around.

Since rulings, recommendations, and laws, regarding unsafe flooring and walkways, have been changing, our goal has been to simplify the process of measuring the coefficient of friction within an acceptable range to assist in providing safer walkways for pedestrians, workers and consumers.

It is important that the operator performing the test, do so in a conscientious manner, understanding basic test methods and procedures. By so doing, reliable results may be obtained.

ASM 825A AND TRACEABILITY

The American Slip Meter Model ASM 825A is designed to quickly test the static coefficient of friction, using a widely recognized test sensor material, Neolite. Neolite is a registered trademark of Goodyear Tire & Rubber Co. The use of neolite as a test material is described in ANSI/NFSI B101.0 & ANSI/NFSI B101.1.

APPARATUS: Digital Horizontal Dynomometer Pull Meter
SERIAL NO.: Engraved on Bottom of Meter Sled
WEIGHT: 4.76 lbs. With Sensors Attached
7.38 lbs. Complete Kit/Carrying Case

REFERENCE:
Calibration – NFSI Reference calibration tile using ANSI/NFSI B101.1 test method. ASTM F2508
Sensors and Preparation – ANSI/NFSI B101.1
Test Procedures - ANSI/NFSI B101.0, B101.1
Terminology - ANSI/NFSI B101.0, ANSI/NFSI B101.1, ASTM F1646

GAUGE READINGS - ACCEPTED INDUSTRY STANDARDS

The ANSI/NFSI B101.1 Test Method for Measuring Wet SCOF of Common Hard-Surface Floor Materials calls out for a 0.60 or above for the available traction to be rated as high traction. The Americans with Disabilities Act (ADA) calls out, shall be slip-resistant.

The previous OSHA recommendation was 0.50 minimum. The Americans with Disabilities Act (ADA) when passed by Congress in July 1992 Title III noted: For all businesses open to the public. ADA and ATBCB recommends flooring and walkways have a coefficient of friction level .60 or above and .80 for ramps.

CONTROL BUTTONS

ON/OFF (red)**: POWER** button
Always turn off when not in use.

Test (+) / CALIBRATE:
This button controls two (2) phases.
By pressing it, will **ACTIVATE or DEACTIVATE a PLUS SIGN (+)**
On the left side of the display. **PLUS SIGN (+)** for testing and **NO PLUS SIGN for calibration.**

DRY / WET:
This button is used to indicate the type of test. A mark will be in the Display next to **DRY or WET.**

NOTE:
When **CALIBRATING,** the **DRY** selection, mark needs to be used. This is **NO +** sign on left display and **DRY** mark on right side. Example on page 5.

CALIBRATION

This procedure is to verify and adjust (if needed) the base spring pre load.
Turn on with power button.
Using left side button, deactivate **+ sign** in the left side of display.
Select **DRY** test.
Stand the slip meter on the end with the black plastic cap. Attach chain with hook to the end of the shaft.
Slowly lift.
Reading in display should be **1.00 +/- .01**
Calibrate within 1% plus or minus.
To decrease, turn shaft clockwise ½ turn at a time.
To increase, turn shaft counter-clockwise ½ turn at a time.
After turning shaft recheck reading.

The electronics calibration is set at the factory and cannot be adjusted in the field. The meters are calibrated to an NFSI reference calibration tile using the ANSI/NFSI B101.1 test method. If other calibration procedures are desired, please contact us at 941-681-2431 or info@americanslipmeter.com

Addition to Page 5

The meter is calibrated to an NFSI test tile as per the ANSI/NFSI B101.1 Lab Procedure. The verification/calibration results are included with the meter.

We recommend sending to American Slip Meter, Inc. every 1-2 years for factory calibration. The interval will depend on the customers use and requirements.

TEST SENSORS

Your kit contains three sets of screw in feet with Neolite pads glued on. Each set is numbered with a 1, 2 or 3. Three number 1's make up the first set and so on. The glue used is a permanent glue. This is a change if you have used our meters in the past with the water soluble glue. We suggest the break in sanding be completed on all three sets prior to testing. With all sets prepared a set can be used for dry, a set for wet and have a spare set.
Extra sets can be ordered. We recommend to remove the screw in feet prior to placing the meter in the carrying case.

Note: The glue used is Loctite GO2 GEL

PREPARATION OF NEW TEST SENSORS

Place 400 grit wet or dry silicon carbide paper on flat surface. With sensors attached, place slip meter on silicon carbide paper. Holding the slip meter like a block of wood, pull across the carbide paper in one (1) direction four (4) times. Turn slip meter 90 degrees and repeat four (4) sandings. Continue until you have sanded in all four (4) directions. New sensors require at least four (4) cycles of this procedure. Clean sensors before using.

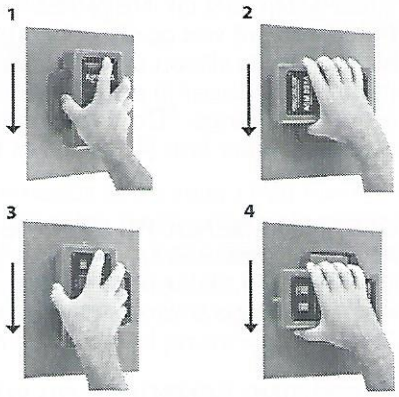
CLEANING SENSORS BEFORE EACH TEST

After initial break-in sanding only one (1) cycle or round of sanding is required. When sanding is completed, use brush to clean sensors and carbide paper. Clean sensors prior to each test. (See page 8 for sanding pictures and additional cleaning instructions)

PREPARING SENSORS FOR WET TESTING

Let the Neolite feet sit in a light layer of distilled water for a minimum of 5 minutes prior to testing.

One round of sanding equals all four (4) directions.
New sensors require four (4) or more rounds.
Cleaning sensors require one (1) round.
Always clean sensors when sanding is complete.



Neolite Feet Cleaning Procedure (Revised 08/21/2015)
1) Sand the feet w/ 400 grit wet/dry silicone paper.
2) Brush feet with the enclosed stiff bristle brush.
3) Set spray bottle to stream, spray feet with distilled water.
4) Brush feet with stiff bristle brush.
5) Spray feet with water to rinse.

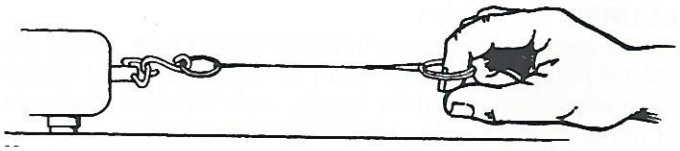
This procedure was revised to remove more of the sanding grit contamination.
Note: When performing dry testing omit steps 3, 4 & 5 in the Neolite Feet Cleaning Procedure above.

TESTING PROCEDURES
With newly prepared or clean test sensors in place, select test, select dry or wet, attach the nylon monofilament by placing hook into shaft of instrument, set meter gently on surface to be tested. Holding monofilament at its length, with the monofilament line ring on index finger, rest palm of hand on surface in direct line with hook (Fig. 1 top of page 10). Control line should be straight and level. Using index finger in ring, slowly curl index finger in towards palm of hand, applying steady pressure until the meter moves. Note reading of meter. Press test/calibrate button once to clear the reading and once more to go back to test mode and repeat this process until you have sampled readings in four directions rotating the meter 90 degrees each time. Average the four readings and record this number in the safety log. An unusually high or low reading should be discounted and another reading taken.

Always clean sensors, by sanding and brushing, before and after each test (test rotation) to prevent the accumulation of contaminants which are usually present on floor surfaces.

TESTING DRY SURFACES Loose dirt and other contaminants should be removed or swept free of area being tested. Floor conditions should always be noted in safety log with each test. To determine the worst condition, test as is or prior to removing loose dirt and contaminants, clean tested area and retest for best condition.

(Fig 1)



TESTING WET SURFACES
To maintain consistent recordings on wet surfaces, the user needs to be aware that from the moment a testing device is placed on a wet surface the weight of the device starts pressuring the moisture out from under the test sensors. The sooner the test is performed, the more accurate the readings. Floor conditions should always be noted in the safety log. Hold slip meter in one hand, press reset button, select **wet**, attach hook on monofilament line to shaft, place index finger of other hand in ring of line, set meter on surface and proceed with test to reduce dwell time of the meter sitting on the surface.

SAFETY LOG
The importance of daily entries in the safety log should not be underestimated, particularly in customer or public areas. An Example is provided.

DATE / /

WHERE CHK'D
1

READING WET	READING DRY

CHK'D BY	

N	
O	

REMARKS

SAFETY LOG - EXAMPLE

Date test being performed.

Location being tested - area of floor or walkway.

If testing a dry area, enter final reading under dry.

If testing a wet area, enter final reading under wet.

Name or initials of person conducting test.

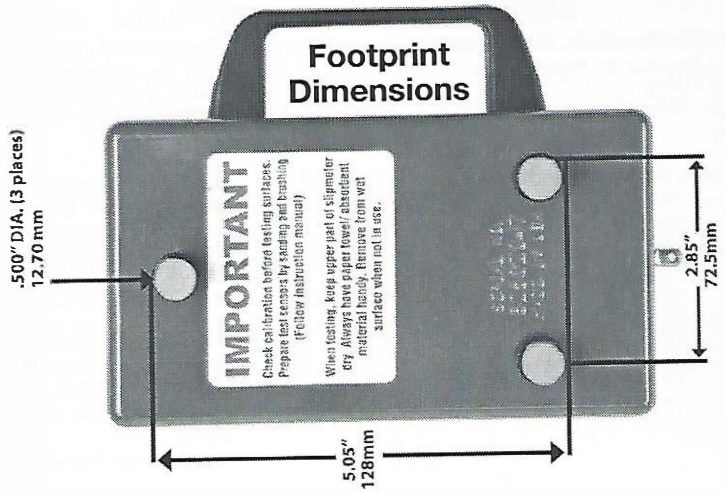
Check type of sensor material used, Neolite, Leather or Other. Describe in remarks Other type of sensor material used.

Enter brief comment. Use back of page for additional remarks, and worksheet.

SKID RESISTANCE VALUE (SRV) TO COEFFICIENT OF FRICTION (COF) CONVERSION*

SRV	COF	SRV	COF	SRV	COF	SRV	COF	SRV	COF	SRV	COF
0	0.00	17	0.16	34	0.34	51	0.55	68	0.78	85	1.04
1	0.01	18	0.17	35	0.36	52	0.56	69	0.79	86	1.06
2	0.02	19	0.18	36	0.37	53	0.57	70	0.81	87	1.07
3	0.03	20	0.19	37	0.38	54	0.59	71	0.82	88	1.09
4	0.04	21	0.20	38	0.39	55	0.60	72	0.84	89	1.11
5	0.05	22	0.21	39	0.40	56	0.61	73	0.85	90	1.13
6	0.06	23	0.22	40	0.41	57	0.63	74	0.87	91	1.14
7	0.07	24	0.24	41	0.43	58	0.64	75	0.88	92	1.16
8	0.07	25	0.25	42	0.44	59	0.65	76	0.90	93	1.18
9	0.08	26	0.26	43	0.45	60	0.67	77	0.91	94	1.19
10	0.09	27	0.27	44	0.46	61	0.68	78	0.93	95	1.21
11	0.10	28	0.28	45	0.47	62	0.69	79	0.94	96	1.23
12	0.11	29	0.29	46	0.49	63	0.71	80	0.96	97	1.25
13	0.12	30	0.30	47	0.50	64	0.72	81	0.98	98	1.27
14	0.13	31	0.31	48	0.51	65	0.74	82	0.99		
15	0.14	32	0.32	49	0.52	66	0.75	83	1.01		
16	0.15	33	0.33	50	0.54	67	0.76	84	1.02		

This is mostly referred to in countries outside of the US that may call out for a SRV value.



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