



# FRICTION SURVEYS DONE ON AIRPORTS TREATED WITH GSB-88 EMULSIFIED SEALER/BINDER

Airfield runways must provide adequate skid resistance to ensure the safe directional control and breaking of aircraft operating on the surface. The degree of skid resistance provided by a pavement surface is expressed in the terms of the surface “coefficient of friction” (COF). A simple definition of friction is: friction value (Mu) equals the force (F), needed to tow an object, creating certain pressure (N), against a flat horizontal surface. Mathematically this is defined as  $\mu = F/N$ . Friction values (Mu readings), measured by a CFME (Continuous Friction Measuring Equipment), can be used as guidelines for evaluating the surface friction of pavements. Friction testing on these test sites was performed using a T6810 and a 6875 Dynatest CFME Runway Friction Tester. As a runway measuring system, this equipment meets the FAA and ICAO specifications for friction measuring devices. The highlighted section of the chart below, taken from the FAA’s Advisory Circular 150, shows friction values (Mu readings) for the Dynatest CFME Friction Tester that are relevant to different classifications of surface conditions.

*Table 3-2, AC 150/5320-12C, Change 1, dated 4/16/04:*

### Friction Level Classification for Runway Pavement Surfaces

	40 mph			60 mph		
	Minimum	Maintenance Planning	New Design/ Construction	Minimum	Maintenance Planning	New Design/ Construction
Mu Meters	.42	.52	.72	.26	.38	.66
Dynatest Consulting, Inc. Runway Friction Tester	.50	.60	.82	.41	.54	.72
Airport Equipment Co. Skiddometer	.50	.60	.82	.34	.47	.74
Airport Surface Friction Tester	.50	.60	.82	.34	.47	.74
Airport Technology USASafegate Friction Tester	.50	.60	.82	.34	.47	.74
Findlay, Irvine, Ltd. Griptester Friction Meter	.43	.53	.74	.24	.36	.64
Tatra Friction Tester	.48	.57	.76	.42	.52	.67
Norsemeter RUNAR (operated at fixed 16% slip)	.45	.52	.69	.32	.42	.63



# FRICTION SURVEYS DONE ON AIRPORTS TREATED WITH GSB-88 EMULSIFIED SEALER/BINDER



## SAN AUGUSTINE, TEXAS Runway application rate .14 gallons per square yard

Time Frame	40 MPH <i>Low Speed Friction</i>	60 MPH <i>High Speed Friction</i>
Control <i>Before</i>	1.08 mu	1.01 mu
24 Hours <i>After</i>	.886 mu	.823 mu
48 Hours <i>After</i>	.867 mu	.82 mu

## TYNDELL AIR FORCE BASE, FLORIDA Grooved Runway test strips

Time Frame	40 MPH <i>Low Speed Friction</i>	60 MPH <i>High Speed Friction</i>
Control <i>Before</i>	.91 mu	.88 mu
30 Days <i>After</i>	.78 mu	.77 mu

## INTERNATIONAL FALLS, MINNESOTA Runway PFC

Time Frame	40 MPH <i>Low Speed Friction</i>
Control <i>Before</i>	.922 mu
Less Than 24 Hours <i>After</i>	.618 mu
90 Days <i>After</i>	.739 mu

## FALLON NAVAL AIR STATION, NEVEDA Runway Test Area 1

Time Frame	40 MPH <i>Low Speed Friction</i>
Control <i>Before</i>	.824 mu
24 Hours <i>After</i>	.501 mu
48 Hours <i>After</i>	.648 mu
72 Hours <i>After</i>	.685 mu

# FRICTION SURVEYS DONE ON AIRPORTS TREATED WITH GSB-88 EMULSIFIED SEALER/BINDER

## FALLON NAVAL AIR STATION, NEVEDA Runway Test Area 2

Time Frame	40 MPH <i>Low Speed Friction</i>
<i>Control Before</i>	.824 mu
<i>24 Hours After</i>	.502 mu
<i>48 Hours After</i>	.695 mu
<i>72 Hours After</i>	.725 mu

## FALLON NAVAL AIR STATION, NEVEDA Taxiway Test Area 1

Time Frame	40 MPH <i>Low Speed Friction</i>
<i>Control Before</i>	.854 mu
<i>24 Hours After</i>	.605 mu
<i>48 Hours After</i>	.728 mu

