



REPORT

IT ONLY TAKES ONE SPARK



**WHY PIG STAT-MAT
ABSORBENTS
ARE THE
PROVEN CHOICE
FOR FLAMMABLES.**

INSIDE: INDEPENDENT TEST REPORT

It only takes one spark.

You can follow all the guidelines, comply with every regulation, bond and ground every tank, fuel pump and container, but one simple fact remains: static electricity hides in plain sight and all it takes is one spark for disaster to strike — especially when there's a spill. Using PIG Stat-Mat Absorbents wherever flammable liquids are stored, transferred or dispensed is the best way to control the risk and keep personnel out of harm's way.



What you need to know before you buy static dissipative mats:



1) The mat should be tested using ANSI/ESD STM11.11 and MIL-STD-3010C methods. No matter what a company says about the static dissipative capabilities of their mat, these testing methods will show the true static decay and resistivity properties of their absorbent pads. This is the only real way to be sure that the absorbent is proven to minimize the risk of static discharge explosions.

PIG Stat-Mat has been tested for more than 25 years and has consistently proven to pass ANSI/ESD STM11.11 and MIL-STD-3010C standards for static decay and surface resistivity.



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2) Packaging is almost as important as the absorbents inside. Because absorbents constructed of polypropylene naturally carry static charges, there is a significant potential for shipping and handling to cause friction between the plastic bag and the absorbents inside — resulting in static charging.

PIG Stat-Mat is packaged in bright pink, static-dissipative plastic that is similar to the packaging used to protect semiconductor chips and sensitive electronic circuit boards from static.

3) 89% of the US has weather conditions that contribute to static ignition.

Static discharge explosions are not just a concern at high altitudes or in arid environments. NOAA monthly data from 2002 shows that 89% of the 263 national weather stations have one or more months per year where relative humidity is 60% or less. The ANSI and MIL Spec standard is conducted at a relative humidity of 50%.

PIG Stat-Mat is safe enough to line flammable storage cabinets.



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Spills, sparks and absorbents.

Static electricity is a contradiction. Although electricity is generated through motion, the charge becomes stuck — static — if there's no path to the ground. Static electricity builds up energy until it can jump to another place, which it does as a spark.

Static electricity builds up as flammable liquids like gasoline, diesel fuel or jet fuel flow through pipes while they're being dispensed or transferred. Charges only take seconds to dissipate after fuel reaches the tank or container.

Static control measures like bonding and grounding, static collectors and additives provide ways for charges to dissipate before sparks can form. But despite all the regulations on the books and the safeguards in place, nearly 280 industrial incidents involving static electricity are reported to fire departments every year.

Refueling and liquid transfers create spills, so it makes sense to use absorbent mats in these areas to conform with environmental standards. The problem with conventional oil absorbents is that they're made from polypropylene — a plastic — and naturally carry a static charge. Independent testing has demonstrated that these mats can carry a charge large enough spark an explosion just by pulling one out of the bag. That's why using conventional oil absorbents around flammable liquids puts people in real danger.

The only way to be sure that a mat is safe to use around flammables is to confirm that it has been tested to and passes ANSI/ESD STM11.11 and MIL-STD-3010C testing methods for static decay and surface resistivity.



PIG Stat-Mat won't build up static charges — even when friction can occur.



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PIG Stat-Mat: built safe, proven safe.

PIG Stat-Mat is a specially treated oil absorbent that dissipates static electricity to reduce the risk of explosions and fires. That means Stat-Mat will greatly reduce the likelihood of a charge whether it's being pulled from the bag, catching drips in a fueling area or soaking up a flammable liquid spill. This is no hype: independent testing proves it.

A product must dissipate a 5 kV static charge in under 0.50 seconds to pass — Stat-Mat does it in 0.01. Here's a quick look at how PIG Stat-Mat performs:

Static Decay

PIG Stat-Mat

5 kV charge applied:

Must discharge to 10% in less than 0.50 seconds preconditioned at 50% R.H.

Product	Min	Max
MAT214	0.002 sec	0.003 sec
MAT215	0.003 sec	0.003 sec

Conclusion:

PIG Stat-Mat Absorbents pass the MIL-STD-3010C standard for static decay.

Surface Resistivity

PIG Stat-Mat

Materials with a resistivity between 1×10^5 and $1 \times 10^{12} \Omega/\text{sq.}$ are considered dissipative.

Product	Min	Max
MAT214	1.978 $\Omega/\text{sq.}$	1.609 $\Omega/\text{sq.}$
MAT215	5.197 $\Omega/\text{sq.}$	9.438 $\Omega/\text{sq.}$

Conclusion:

PIG Stat-Mat Absorbents pass the ANSI/ESD STM11.11 standard for surface resistivity.



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Independent Test Report

Testing for New Pig's Stat-Mat for static decay and surface resistivity was conducted by an independent lab per industry standards. Please contact New Pig Technical Services department for additional information.

Reduce the risk of electrostatic discharge.



PIG Stat-Mat Absorbent Pads & Rolls

The ONLY absorbent mat for fuels and solvents proven to dissipate static; a critical precaution around flammable liquids and vapors. Stat-Mat Pads and Rolls pass ANSI/ESD STM11.11 and MIL-STD-3010C standards for static decay and surface resistivity, making them perfect for fueling areas and solvent cleanup. Absorb and retain oils and fuels, but not water.

[MAT402 — PIG Stat-Mat Absorbent Roll](#)



[MAT214 — PIG Stat-Mat Absorbent Pad](#)



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