

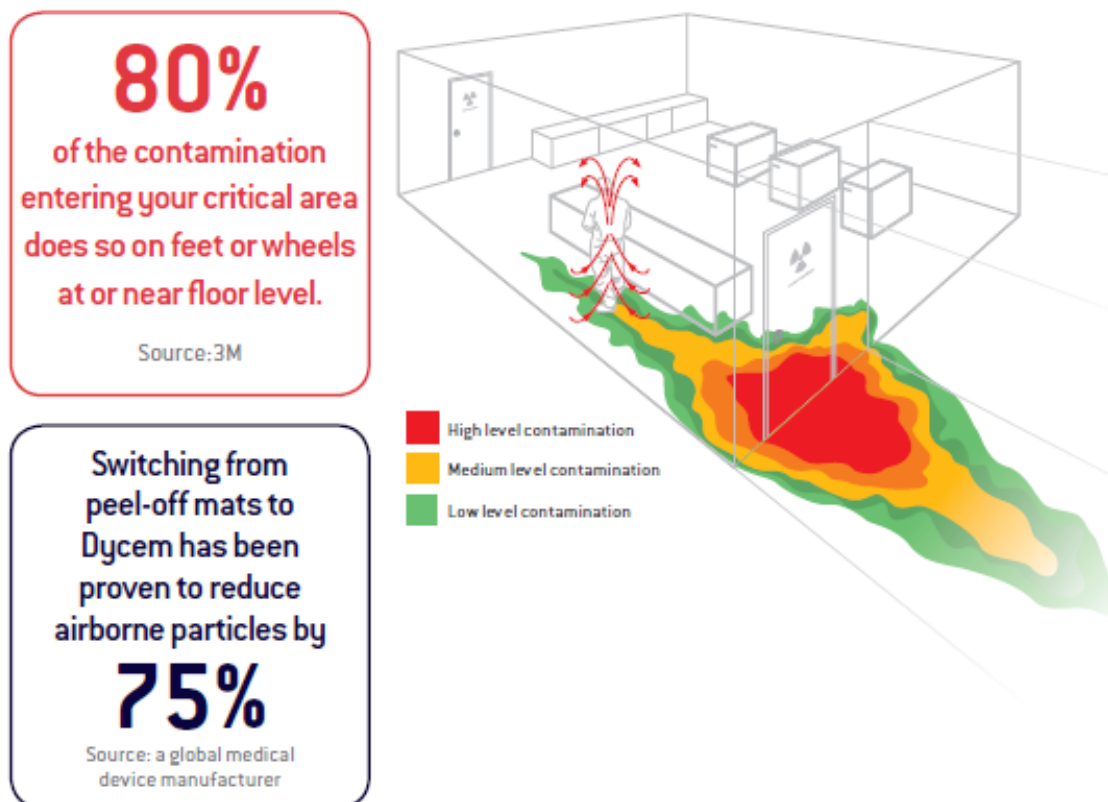
## Compare Dycem Mat with Sticky Mat (peel off mat)

### Saving Your Products, Processes and Profits

A contamination breach can result in rejected goods, manufacturing downtime and loss of consumer confidence. The negative impact on product yields, reworking and operational effectiveness is significant and the effect on profitability can be considerable.

Where does contamination come from?

Foot and wheel borne particles become airborne in your critical area, creating a high risk of particle and microbiological contamination.



NPR MATERIALS CO., LTD

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## 1. Preventing Foot and Wheel borne Contamination

It is vital that foot and wheel borne contamination is effectively controlled. It is commonly thought that using disposable, adhesive peel-off mats is the answer. However, tests from GlaxoSmithKline show that peel-off mats are only 27% effective in preventing foot and wheel borne contamination.

**27%**  
of foot and wheelborne  
contamination  
is prevented by  
peel-off mats.

Dr Caroline Clibbon,  
Senior Microbiologist, GlaxoSmithKline, UK

**99.9%**  
of foot and wheelborne  
contamination  
is prevented by  
Dycem CleanZones.

Dr Caroline Clibbon,  
Senior Microbiologist, GlaxoSmithKline, UK

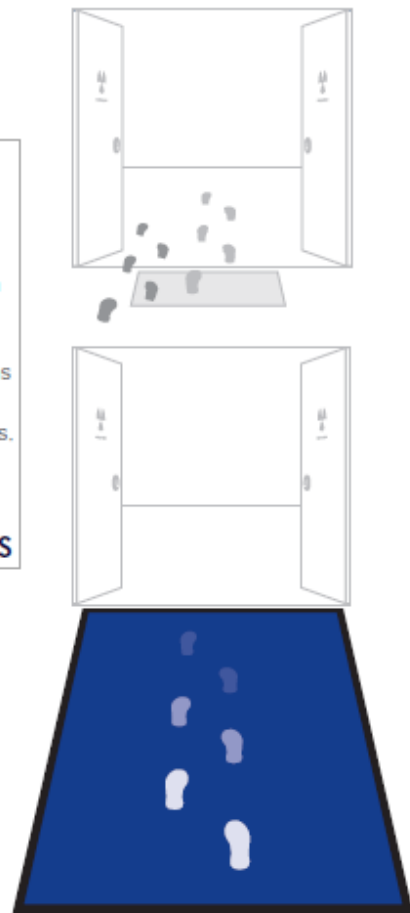
### PEEL-OFF MATS

Effective decontamination  
needs at least six footfalls  
(three for each foot), or  
three full wheel rotations as  
contamination builds up in  
layers on shoes and wheels.

### DYCEM CLEANZONES



Size Matters:  
Peel-off mats have a surface area that  
is on average five times smaller than  
a Dycem CleanZone.



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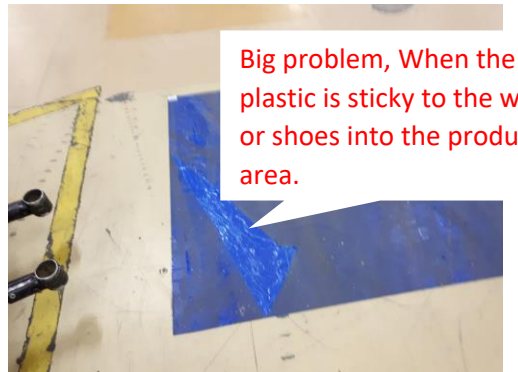
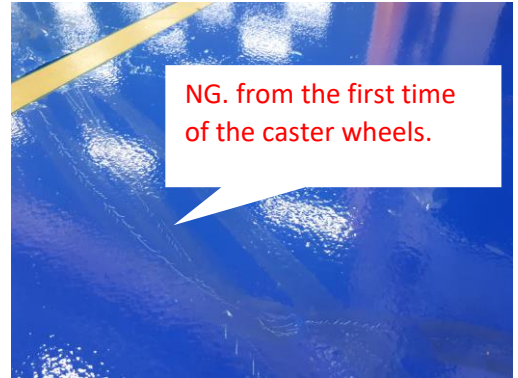
2. Peel-off Mats Don't Work with Wheeled Traffic, Incapable at taking heavy loads of wheel traffic

Peel-off mats cannot allow the three full wheel rotations necessary to decontaminate wheeled traffic. Peel-off mats are also prone to wrapping around wheels of trolleys and carts making it impossible to control cross contamination in corridors.

PEEL-OFF MATS	DYCEM CLEANZONES
<p><b>It is impossible</b> to decontaminate wheeled traffic using a peel-off mat.</p>	<p>CleanZones remove <b>99.9%</b> of contamination from wheeled traffic.</p>
	



Peel-off mats wrap around the wheels of trolleys and carts.



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### 3. Peel-off Mats Become Ineffective with Multiple Footfalls

The performance of peel-off mats is greatly reduced with overstrikes. If used correctly i.e. each person stops and takes at least three steps with each foot, overstriking will occur. To achieve the peel-off mat's optimum 27% effectiveness they need to be peeled after every use.

In addition, particles readily transfer back onto footwear, increasing the risk of contamination.

**PEEL-OFF MATS**

**50%**  
drop in performance  
when one person  
uses the peel-off  
mat correctly.

**DYCEM CLEANZONES**

CleanZones maintain  
high performance  
decontamination  
even after several  
overstrikes.

Overstriking on peel off mats quickly reduces performance and restricts control of contamination.

The more overstriking there is, the more risk of a contamination breach.

Dycem's performance is maintained even with overstriking due to its unique surface.

Peel-off mats are too hard to allow contact with all particle sizes. Small particles can remain on footwear.

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Table 12: Polymeric flooring vs peel-off mats – average all soling types, Bath University, 1998

Control surface	Particle reduction (%)		
	2 microns	5 microns	10 microns
Peel-off mats	43.7	42.4	28.2
Polymeric flooring	82.5	85.9	84.7

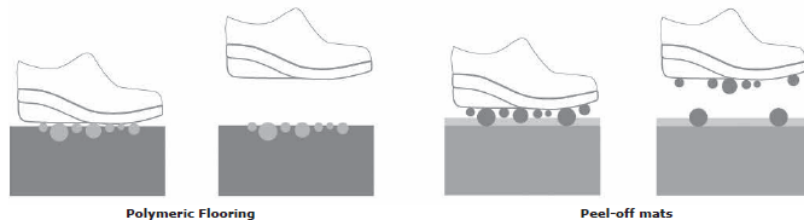


Figure 3. Polymeric flooring is largely effective with all soling types although most effective when smooth-soled shoes are used.

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#### 4. Peeling Mats Causes Particle Shedding and Recontamination of the Atmosphere

A study commissioned by a peel-off mat manufacturer highlighted the problem of particle shedding during the rip-up process of peel-off mats.

**EXPOSING STAFF TO VIABLE AND NON VIABLE PARTICLES DURING PEELING IS AN UNACCEPTABLE HEALTH AND SAFETY RISK.**

**PEEL-OFF MATS**

In tests of leading peel-off mats, on average **215,000** particles were released during the rip-up process.

**DYCEM CLEANZONES**

Particles captured by CleanZones are contained and removed safely during wet cleaning.

The peeling stage releases hundreds of thousands of particles back into the atmosphere.

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## 5. Peel-off Mats Harm Your Environmental and Health & Safety Compliance

Peel-off mats generate a 20cm (8") ball of waste each time a mat is ripped up and generate enough waste to fill multiple dumpsters/skips in a single year (average estimates have proven between 8-25 dumpsters). As the surface area of the peel-off mat is exposed to contaminated particles, it should be treated as secondary waste which costs more to dispose of safely.

Dycem CleanZones are cleaned as part of your regular floor cleaning schedule and therefore do not impact on your daily waste volumes. Dycem CleanZones can also be recycled into less critical applications at the end of their lifecycle.



**Peel-off mats create large quantities of secondary waste which is impossible to recycle.**

**Dycem reduces your carbon footprint and can be recycled into less critical applications.**

**The use of adhesive peel-off mats also presents a health and safety risk to cleanroom personnel. The adhesive often pulls and rips over-shoes and also causes a severe tripping**



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6. Dycem Mat is ESD Clean Flooring Material.



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7. Biomaster Guarantee



ALL DYCEM SAMPLES WERE TESTED TO ISO 22196:2011.

From the results it was seen that when incorporating Biomaster GC 100 into the Contamination mat very good efficacy was demonstrated against Campylobacter, Salmonella and listeria giving a >99.8% reduction in bacteria numbers.

# CONCLUSIONS ON TEST RESULTS.



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**SAFE. EFFECTIVE. PERMANENT.**

**IMSL INDUSTRIAL MICROBIOLOGICAL SERVICES LTD**

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<b>CUSTOMER</b> Dyem Ltd Ashley Trading Estate Bristol BS38BB		<b>CERTIFICATE NO.</b> CUSTOMER REF.	2009/2011
<b>SAMPLE DETAILS</b> ADDMASTER		<b>DATE RECEIVED</b> ORDER NO.	04/04/2011
<b>METHOD</b> Determination of Antibacterial Activity using Test Based on ISO 22196:2011		<b>DATE REPORTED</b>	
<b>DATE ANALYSED</b>	30/03/2011	<b>CONTACT TIME</b>	0 hrs 24 hrs
<b>RESULTS (AS CFU CM<sup>2</sup>)</b>		2.0E+04 6.7E+02	<b>REDUCTION (INITIAL)</b>
<b>SAMPLE</b>	POLYSTYRENE DYCEM WITH BIOMASTER	2.0E+04 1.1E+01	Log 10 ≥ 3.26 ≥ 99.94%
<b>SPECIES</b>		Campylobacter	
		Campylobacter	

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