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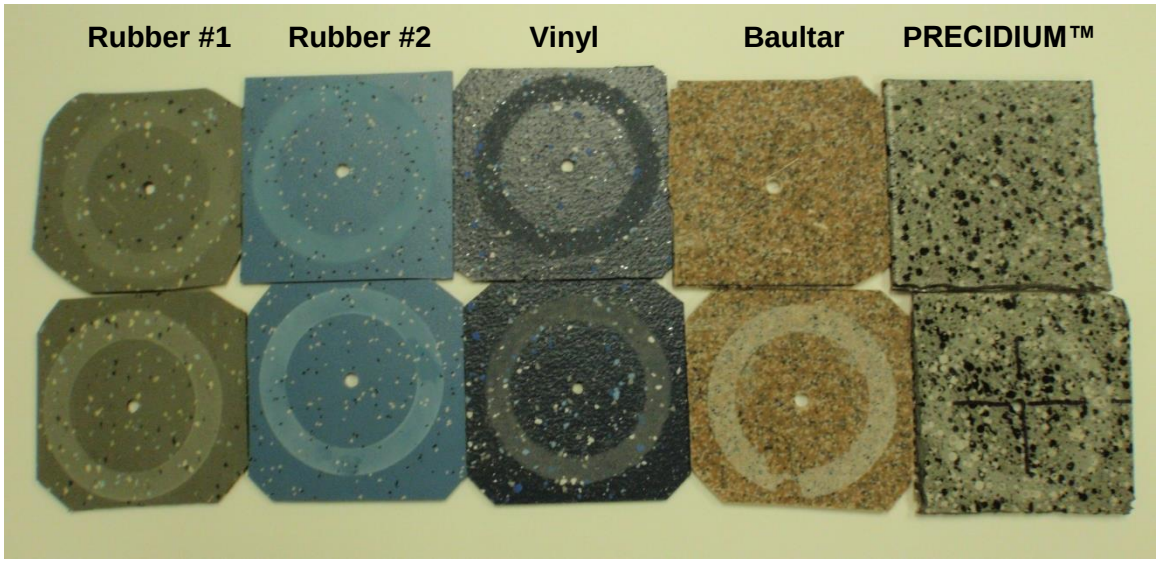
Taber Abrasion Flooring Comparison

A Taber Abrader was used to compare a series of flooring samples against the **PRECIDIUM™ MTI Floor System**. Testing was done under 1000g load for 1000 cycles, with wheels resurfaced every 500 cycles. Each floor sample was tested with a CS-17 and H-18 abrasive wheel, common test wheels. The CS-17 is a mild-medium abrasive while the H-18 is a medium-coarse abrasive, and accordingly results in a great deal more abrasion.

The following table is a summary of the results:

Material	CS-17 Weight Loss	CS-17 Thickness Lost	H-18 Weight Loss	H-18 Thickness Lost
	(mg)	(mil)	(mg)	(mil)
Vinyl	50	0.6	340	4.1
Rubber #1	160	1.8	620	7.1
Rubber #2	120	1.1	580	5.4
Baultar	120	0.9	620	4.4
PRECIDIUM™	60	0.8	180	2.4

Below is a picture of the samples following testing.The top row of samples were tested with the CS-17 wheel while the bottom row was tested with the H-18 wheel. *It is important to note that the H-18 **PRECIDIUM™** sample was subjected to 1500 cycles while the others were only tested to 1000 cycles. This was done for interest as it wore down to the accent colors, and the sample lost 110mg during the additional 500 cycles.



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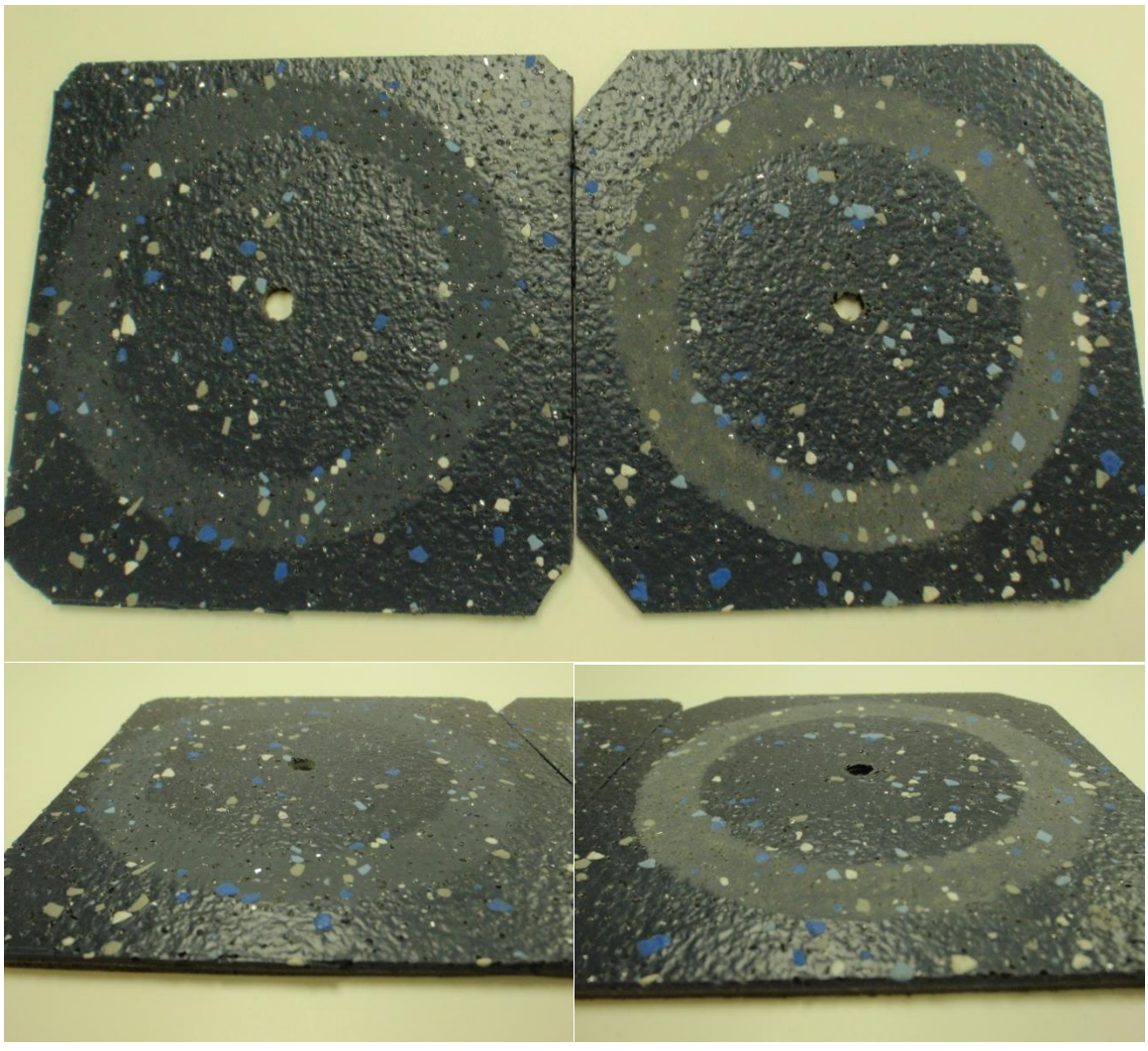
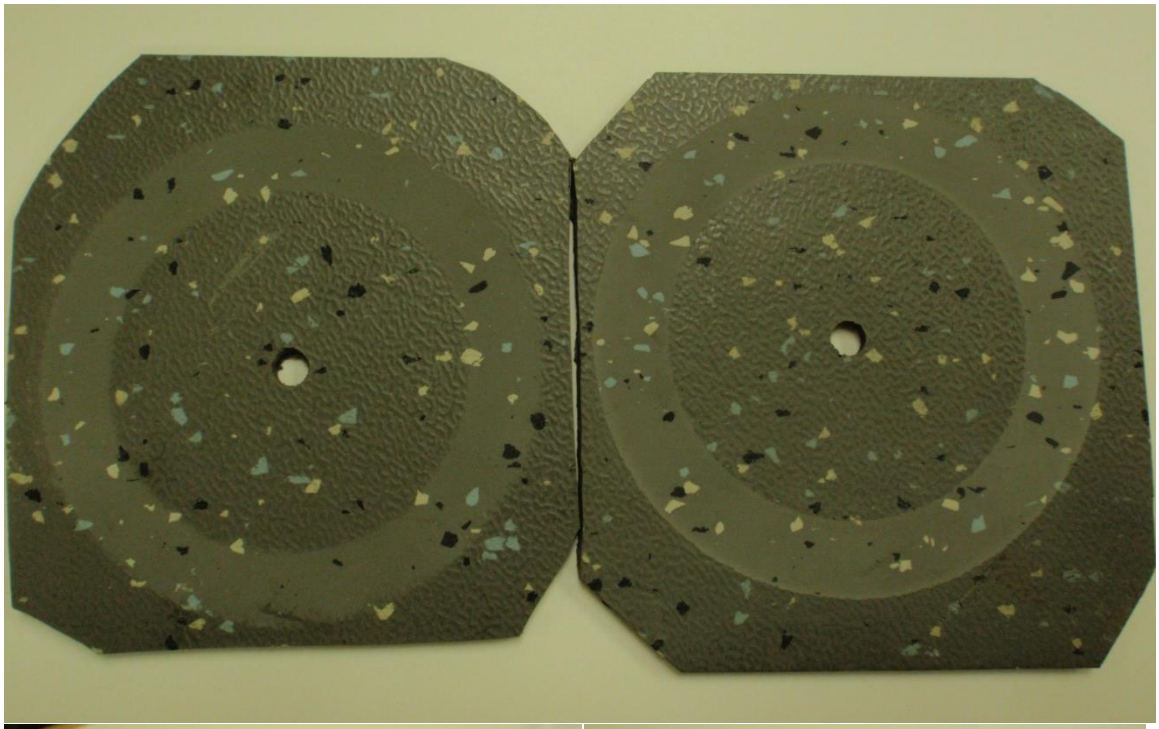
Vinyl

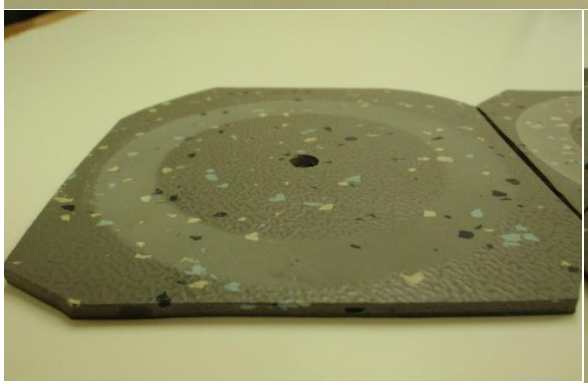
Vinyl had the best numerical results for CS-17 wheel, and second best for the H-18 wheel. It was not, however, the best in appearance.The gloss change was almost immediate, and the abrasion uncovered small pits that seemed to indicate that the vinyl was somewhat porous, which means dirt pickup would be high and cleanability low, as it gets worn down. The H-18 sample's color was quite evidently changed and seemed almost chalky, likely due to dust from abrasion being held on the surface.

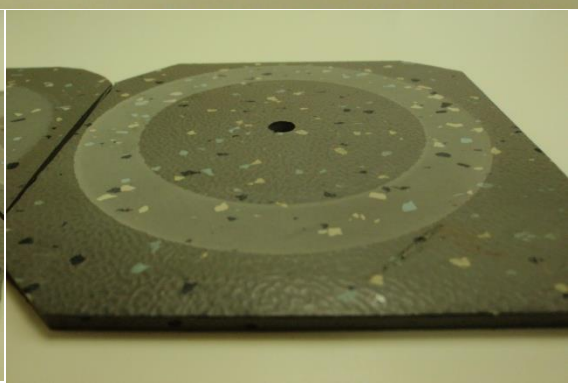


Rubber Sample #1

Rubber Sample #1 performed better than Rubber Sample #2, with lower weight loss but significantly lower thickness loss due to being a higher density. Being a darker color, the wear tracks were also slightly less noticeable.

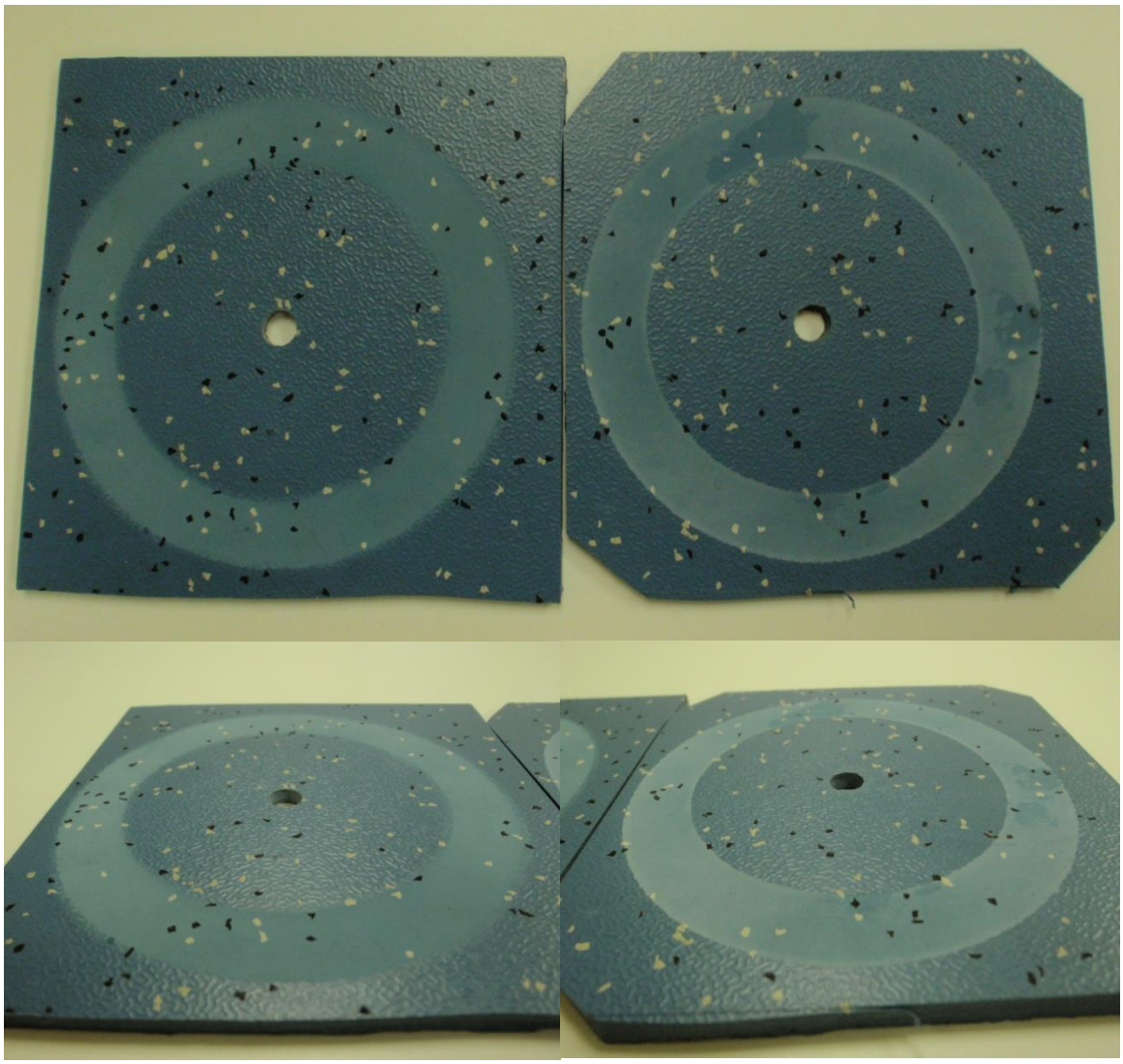






Rubber Sample #2

Rubber Sample #2 performed the worst for both weight and thickness lost for both the CS-17 and H-18 wheels. Wear tracks are significantly lighter in color.



Baultar

Baultar is the odd flooring of this testing group. Where the others are flexible, the Baultar is quartz contained in a solid matrix that is extremely rigid. The CS-17 wheel made a slight wear mark that is noticeable as being slightly glossier. It did lose the second most weight but that did not translate into much thickness loss as the density is quite high. For the H-18 wheel the change in abrasiveness created a much different result as the Baultar lost the most weight and the wheels ground into the matrix.

PRECIDIUM™

PRECIDIUM™ had the second best results for the CS-17 wheel, coming in close behind the vinyl. For the H-18 wheel it had significantly superior properties, losing just over half as much weight as the vinyl and under a third of the weight of the other samples. It also had significantly less thickness loss. The wear tracks from the CS-17 wheel showed no perceptible color change, but a drop in gloss is evident, especially as these were the glossiest samples at the start. The wear tracks for the H-18 wheel are pictured after 1500 cycles; after 1000 cycles the accent colors had not yet been reached, but unfortunately no pictures were taken before the additional 500 cycles were run. An advantage to note is that at this point the **PRECIDIUM™** could be refinished with a new top coat that would restore it to its original condition, even in a different color combination if flooring style was revamped.