

POSITION PAPER:

EcoSoft® Ergonomic – Enhanced Underfoot Comfort
May 2020

OVERVIEW

EcoSoft® is the world's leading carpet tile backing system developed by and applied in the production of Carpets Inters modular carpet tiles.

EcoSoft® is manufactured via a process of re-engineering discarded single use PET drinking water & soft drink bottles, along with post-industrial recycled PET to positively out perform all other carpet tile backing systems via its contribution to protecting our worlds precious environment.

EcoSoft® is an award winning environmentally friendly backing system and meets the stringent performance criteria required for a modular carpet system and consistently out performs conventional Hard back PVC and bitumen carpet tiles, as well as urethane cushion back carpet tiles in terms of durability, underfoot comfort, acoustical propensity and indoor air quality.

To date approximately 750 million discarded single use PET bottles have been re-engineered in to EcoSoft® Carpet tiles

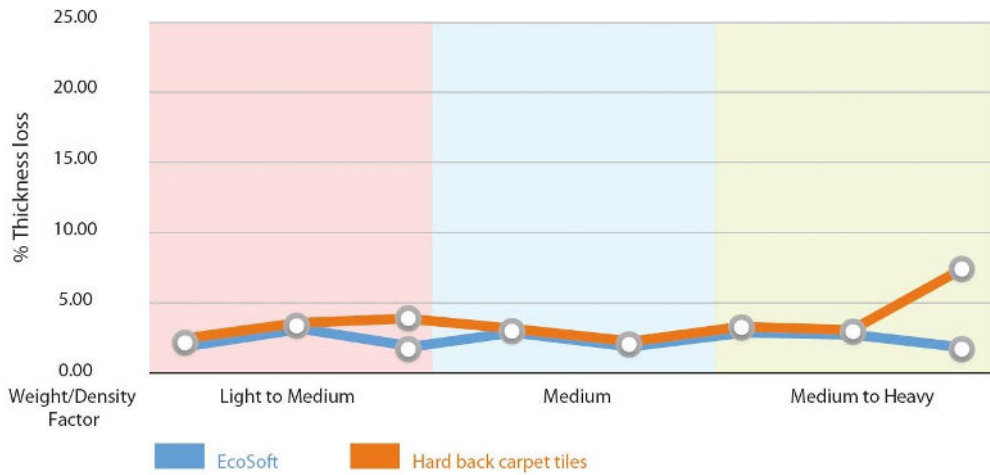


Laboratory Tests were undertaken using two different calibrated standard textile testing methods for Dynamic Impact and Static Load. Two sets of the exact same density and specification carpet quality samples, one set using EcoSoft® backing and 1 set using a conventional Hard Backing were tested to measure the Pile recovery (regain). The following results were obtained:

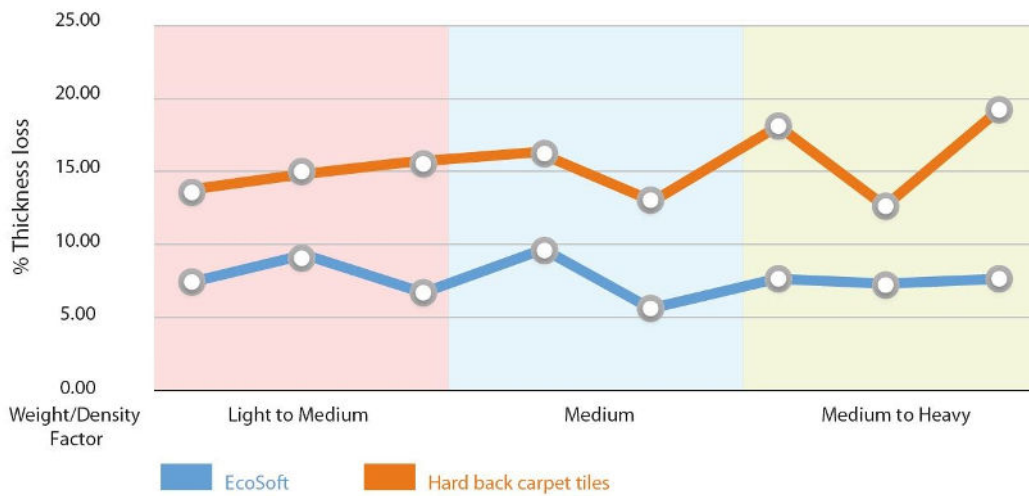
DYNAMIC IMPACT TEST:

The dynamic impact test simulates impact from underfoot and/or castor wheel traffic. Data was recorded after 50, 100, 200, 500 and 1000 impacts.

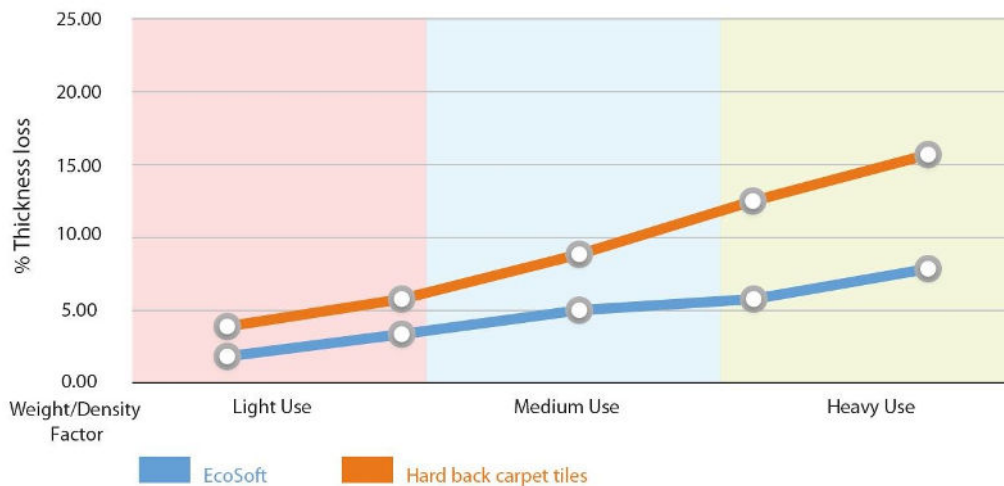
Thickness loss after 50 impact



Thickness loss after 1000 impact



Consolidated result across all 5 Tests



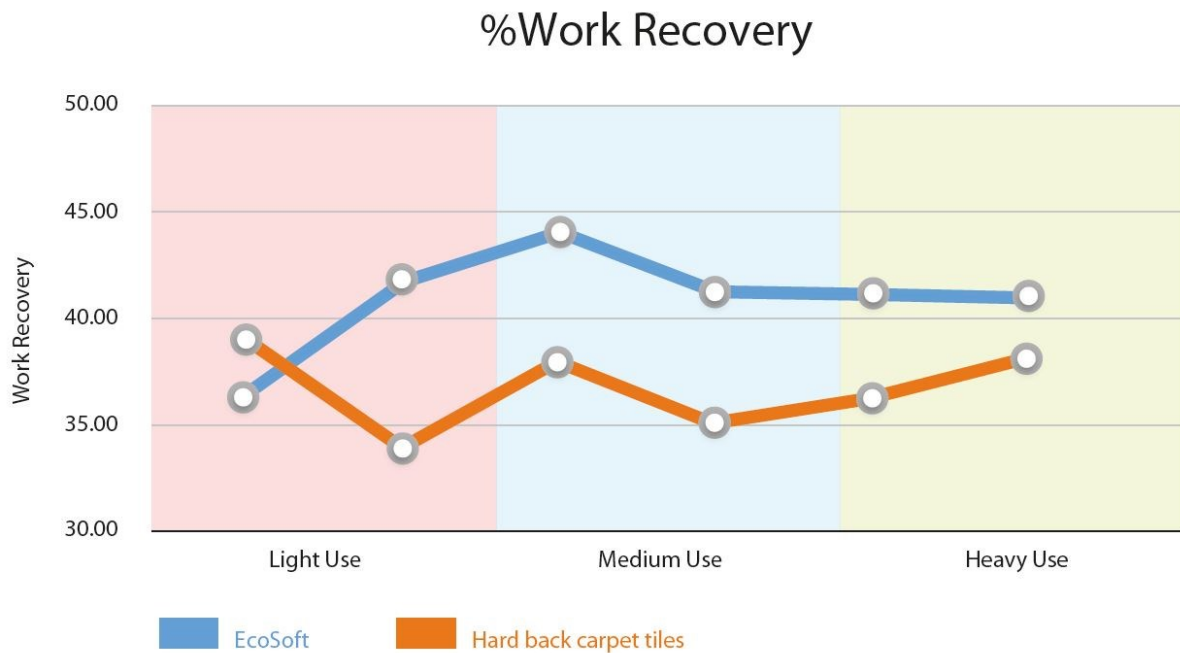
OBSERVATIONS:

Reduced Pile % thickness loss and higher pile % regain translates to better suspension and longer lasting ergonomic underfoot comfort.

- After 50 impacts (Light wear) there is no significant difference of % thickness loss between EcoSoft® and a conventional Hard back.
- After 1000 impacts (medium > Heavy wear), all samples using EcoSoft® backing had less than 50% of pile thickness loss (compression), when compared to those using a Hard back.
- At +1000 Impacts (Heavy wear), all hard-back samples had far lower pile thickness and remained permanently compressed when compared to the pile regain in the EcoSoft® quality samples.

STATIC LOAD TEST:

The Static Load test simulates heavy point load from Furniture (i.e. Table, Chair, Cabinet) leg/foot left in one position for over 24 hours before removal. This test is to determine the natural ability for pile height recovery of the compressed pile over a further period 24 hours upon removal of the static load.



OBSERVATIONS:

A higher % of Work Recovery (thickness) translates to better suspension of the carpet Backing to combat compression of the Pile height under a Static load.

- For Light use carpet tile, there is marginally more indentation of the pile as the cushion back compresses.
- For Light to Medium and all wear categories above being the weight/densities compatible to all Commercial wear spaces, all samples using EcoSoft® backing had between 15 to 20% higher Work Recovery than the equivalent weight/density quality samples using Hard back.

SUMMARY:

The consolidated laboratory test results show that Modular Carpet Tile using Carpet Inters proprietary EcoSoft® PET Felt cushion backing manufactured from recycled plastic bottles out-perform and achieve a far better pile thickness recovery than an equivalent pile weight & density Hard Back Carpet Tile consistently.

This ensures that the appearance retention and ergonomic underfoot comfort of an EcoSoft® backed carpet Tile will out-perform all Hard-Backed carpet tile of an equivalent weight and density, providing occupants within the facility increased longevity of wear performance.

Full test data is available upon request.

Carpets Inter manufacture under the following certified quality standards:

