


HEALTHIER...
CARPETS

COMMON CARPET TILE MATERIALS

Face	Backing	Installation
Nylon - 43%	Vinyl & Polyurethane	Adhesive
Polyester - 41%	Polyester	Tacks
Polypropylene - 12%	Recycled plastics	Velcro
Wool - 2%		



SELECTION CONSIDERATIONS

- Target populations**
Types of inhabitants will affect choices; office workers are susceptible to indoor air quality, while toddlers will touch the fiber surface much more.
- Lack of clarity**
Carpet manufacturers often make health certification claims that are difficult to check against each other for efficacy; many materials are noted as proprietary on product declarations.
- Health priorities**
Designers must judge whether the sound, thermal, and aesthetic benefits of carpet products are worth potential risks in terms of indoor air quality and downstream environmental effects.
- Petrochemical reliance**
Most carpet products are solely dependent on petrochemical materials, with more natural materials like wool having less market presence.

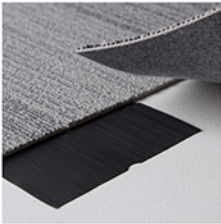
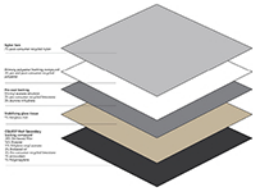
SELECTED PRODUCTS

POPULATION FOCUS: OFFICE WORKERS
PRODUCT FOCUS: MODULAR CARPET TILES



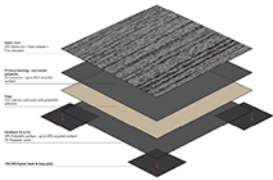
Interface
CQuestBioX Tile

- Pros: More recycled materials, carbon-negative backing; less petrochemicals
- Cons: Adhesive installation



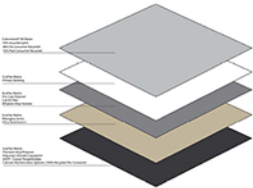
Bentley Mills
AFFIXX Tile

- Pros: Velcro installation allows continuous replacement and lower VOCs
- Cons: All layers utilize petrochemicals



Mohawk
Creative Spark Tile

- Pros: Recycled nylon fibers, comprehensive recycling program
- Cons: Adhesive installation, petrochemical layers



MATERIAL HEALTH CONSIDERATIONS

Manufacturing Hazards

- Plastics manufacturing emissions and VOCs
- Substantial thermal energy required
- Recycling process requires substantial energy



Occupancy Hazards

- VOCs and off-gassing after installment and during installation
- Stain and flammability treatments can contain risky chemicals
- Frequency of maintenance needed affects lifespans



Installation

- Tiled installation
- Prefer carpet tacks and fasteners in lieu of glue adhesives (risk of VOCs)
- Bond strength affects wear and tear over time



End of Life

- Most manufacturers offer take-back recycling programs, but efficacy is lacking
- Most carpet ends up in landfills
- Recycled carpet often ends up downcycled into simpler products



Source: GAIA & Changing Markets, Swept Under the Carpet: Exposing the Greenwash in the U.S. Carpet Industry

	INTERFACE CQuestBioX Tile	BENTLEY MILLS AFFIXX Tile System	MOHAWK Creative Spark Tile
HUMAN HEALTH	Post-consumer nylon Bio-based backing Glue adhesive	Nylon Polyester backing Nylon velcro pads	Post-consumer nylon Ecoflex vinyl backing Glue adhesive
	"Pending" Indoor Air Quality-Green Label Plus	Declared Red List Free, but some potential hazards like flame retardant & proprietary stain protection	Declared Red List Free
INDOOR CLIMATE	Free of Added Heavy Metals, Ortho Phthalates, Formaldehyde, Fluorinated Chemicals (PFAS), and Halogenated Flame Retardants	No adhesives required for installation (velcro pads) - reduced risk of VOCs	CRI Green Label Plus GLP1171
ENVIRONMENT - ENERGY	Recycled polymers in both yarns and backings reduce environmental impacts compared to virgin petrochemically based materials	Cradle to Cradle Silver	Recycled polymers in both yarns and backings reduce environmental impacts compared to virgin petrochemically based materials
ENVIRONMENT - CARBON	Carbon negative backings	More petrochemical-based backing material = increased Global Warming Potential	XXXX
AFFORDABILITY	XXXX	XXXX	XXXX
MAINTENANCE	Stain resistance with "Protect2"	Ease of replacement with velcro tiles	Lifetime limited wear warranty - Carpet will not wear more than 10% of its surface pile weight for the life of the carpet. Life expectancy: 15 years
DISASSEMBLY / RECYCLING	Life expectancy: 15 years Carpet to Carpet recycling through ReEntry program	Life expectancy: 15 years "Fulfill" take-back program, up to 45% reuse in new backing	Corporate Waste Stream - recycling into new pile, backing, or non-related plastic product