

# Safe & Circular Product Redesign Workshop

## EXPLORE (5 MINS)

CHOOSE A COMMERCIAL APPLICATION

### WHAT ARE THE FUNCTIONAL NEEDS AND REQUIREMENTS OF A CARPET TILE?

For example, the underlying functional need of a car is to get from one place to another.

INTERVIEW A USER

## DEFINE THE CHEMICALS OF CONCERN (15 MINS)

PICK & SCREEN TWO CHEMICALS THAT ARE IN THE PRODUCT

This is a summary of all the chemicals that can be found in a product like this, and not a complete list. Screen the different chemicals using [MaterialWise.org](https://www.materialwise.org).

### WHICH CHEMICALS SHOULD BE DESIGNED OUT?

Highlight the chemicals of concern that should be designed out in the next phase.

- YARN FACE - POLYMER  
NYLON 6 | 25038-54-4 TOXIC: Y / N
- STAIN RESISTANCE TREATMENT  
PERFLUOROBUTANESULF-ONIC ACID | 375-73-5 TOXIC: Y / N
- PIGMENT FOR DYE  
TITANIUM DIOXIDE | 13463-67-7 TOXIC: Y / N
- FLAME RETARDANT  
ALUMINA TRIHYDRATE | 21645-51-2 TOXIC: Y / N
- ANTI-MICROBIAL (DISINFECTANT)  
ZINC PYRITHIONE | 13463-41-7 TOXIC: Y / N
- PLASTICIZER (ENHANCES FLEXIBILITY)  
BIS(2-ETHYLHEXYL) TEREPHTHALATE | 6422-86-2 TOXIC: Y / N

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## REDESIGN (30 MINS)

### DEVELOP 3 CONCEPTS FOR IMPROVEMENTS

Are there different or better ways to meet the needs while designing out the substances of concern? Brainstorm to come up with new ideas using the Material Health Strategy Cards

Describe and illustrate 3 concepts for improvements by using the Material Health Strategy Cards. Try to be visual and give it a memorable name.

CONCEPT IDEA

## REFLECT (10 MINS)

### WHAT NEEDS TO BE INCLUDED IN THE DESIGN PROCESS?

What data would be important to have? What infrastructure is needed?  
Who would you need to collaborate with?

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