

# “California’s Magic Carpet Ride”

CalRecycle - Zone Works      April 6, 2016





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## 4 Billion Lbs. Post Consumer Carpet (PCC) Landfilled in the U.S. Annually!

102 Million lbs. Collected in California in 2015, which is 20% of the U.S. total collected

8.4 Million lbs. Recycled in California in 2015

400 Million lbs. Landfilled in California Annually (estimated by CARE)

# 1,000 sq.ft. of Recycled PCC =

- ▶ Diverts 500 lbs. from Landfills
- ▶ 180 lbs. of Calcium Carbonate
- ▶ 1 Million BTU's to Manufacturer
- ▶ 48 Gallons of Petroleum Oil to Manufacturer
- ▶ 913 lbs. of CO2 Emissions or 950 Auto Driven Miles

# Advantages to PCC Recycling!

- ▶ Reduces reliance on disposal
- ▶ Recovers materials to make other products
- ▶ Creates Recycling jobs
- ▶ Reduces Waste Management costs for Governments
- ▶ Reduces the need for virgin materials to be extracted
- ▶ Reduces GHG Emissions & Energy Use to produce new carpet



# Carpet Recycling Myth...

ALL Carpets can be recycled?



The face fiber and backing content determine if your carpet is acceptable and able to be recycled.

Employees using our infrared spectrometer gun to analyze recently received PCC to determine its fate or glory...

What types of PCC are currently able to be recycled?

# Recyclable PCC Types




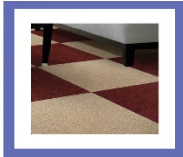




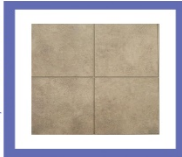


- ▶ Nylon 6
- ▶ Nylon 6,6
- ▶ PP (Polypropylene)

## Post-Industrial Carpets (Commercial)

- Most Carpet Tiles
- N,6 Cut Pile (plush)  
Broadloom

# What's made from recycled PCC?

NYLON FIBERS	POLYPROPYLENE BACKING	CALCIUM CARBONATE (LIMESTONE)
<div>Auto Parts</div> <div></div> <div>Roof Shingles</div> <div></div> <div>Building Materials</div> <div></div> <div>Carpet</div> <div></div>	<div>Erosion Control</div> <div></div> <div>Geo Hay Absorbent</div> <div></div>	<div>Concrete</div> <div></div> <div>Portland Cement</div> <div></div> <div>Vinyl Floor Tile</div> <div></div>
<b>RECYCLING 1000 sq. ft. of CARPET :</b>	<ul style="list-style-type: none"><li>■ DIVERTS 500 lbs. FROM U.S. LANDFILLS</li><li>■ SAVES 48 GALLONS OF OIL</li><li>■ REDUCES 913 lbs. of CO<sub>2</sub> (the equivalent of 950 automobile miles)<sup>2</sup></li></ul>	



# Non-Recyclable PCC Types



- ▶ PET
- ▶ Blended Fibers
- ▶ Looped N,6
- ▶ Looped N6,6

## Post-Industrial Carpet

- Rubber Backed Carpet Tile
- Level Loop Broadloom N,6/N6,6
- Excessive Adhesive Transfer

# Challenging Times for Carpet Recycling

- ▶ Dramatic decline in oil prices
- ▶ Lost domestic capacity for Nylon 6 pcc
- ▶ China's economic slowdown
- ▶ West Coast port labor disputes
- ▶ Poor individual business strategies

# CARE AB2398 - BIG Changes!!!

- ▶ Increased subsidies to domestic carpet recycling processors
- ▶ Increased subsidies for various pcc harvested materials
- ▶ New bonus for non-nylon pcc processing (i.e. PET)
- ▶ New incentives for CSE's (Certified California Collector/Sorter Entrepreneurs)
- ▶ Monthly reporting to assist businesses cash flow
- ▶ Grant Programs (Capital Investment, Product Testing, Product Procurement)
- ▶ Established low interest rate Loan Program
- ▶ Doubled budget for Outreach & Marketing
- ▶ Expanded California CARE staff
- ▶ Expanding Rural County, adding additional convenient collection locations
- ▶ Carpet Manufacturers to begin "Back Labeling" new carpeting
- ▶ Formation of the California Council on Carpet Recycling

# Carpet Recycling FUN Facts!



- ▶ (19) 20oz. PET water bottles to make a square foot of PET carpet
- ▶ Ford uses approx. 25 lbs. of pcc recycled materials in their F150 and over 4 million lbs. annually
- ▶ Mohawk Industries uses approx. 3 billion PET bottles annually to make carpet
- ▶ 1 lb. of pcc contains approx. 40% calcium carbonate
- ▶ **YOU** learned a lot about carpet recycling today!!! 😊