

“California’s Magic Carpet Ride”

CalRecycle - Zone Works April 6, 2016





greenwaste
carpet recycling

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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 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

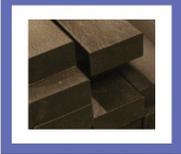


- ▶ Nylon 6
- ▶ Nylon 6,6
- ▶ PP (Polypropylene)

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)
<p data-bbox="186 582 206 672">Auto Parts</p>  <p data-bbox="417 565 438 676">Roof Shingles</p>  <p data-bbox="186 739 206 886">Building Materials</p>  <p data-bbox="417 776 438 836">Carpet</p> 	<p data-bbox="927 554 947 682">Erosion Control</p>  <p data-bbox="927 733 947 893">Geo Hay Absorbent</p> 	<p data-bbox="1396 586 1416 668">Concrete</p>  <p data-bbox="1628 554 1648 691">Portland Cement</p>  <p data-bbox="1518 748 1538 876">Vinyl Floor Tile</p> 

**RECYCLING
1000 sq. ft.
of
CARPET :**

- DIVERTS 500 lbs. FROM U.S. LANDFILLS
- SAVES 48 GALLONS OF OIL
- REDUCES 913 lbs. of CO₂
(the equivalent of 950 automobile miles) 2

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!!! 😊