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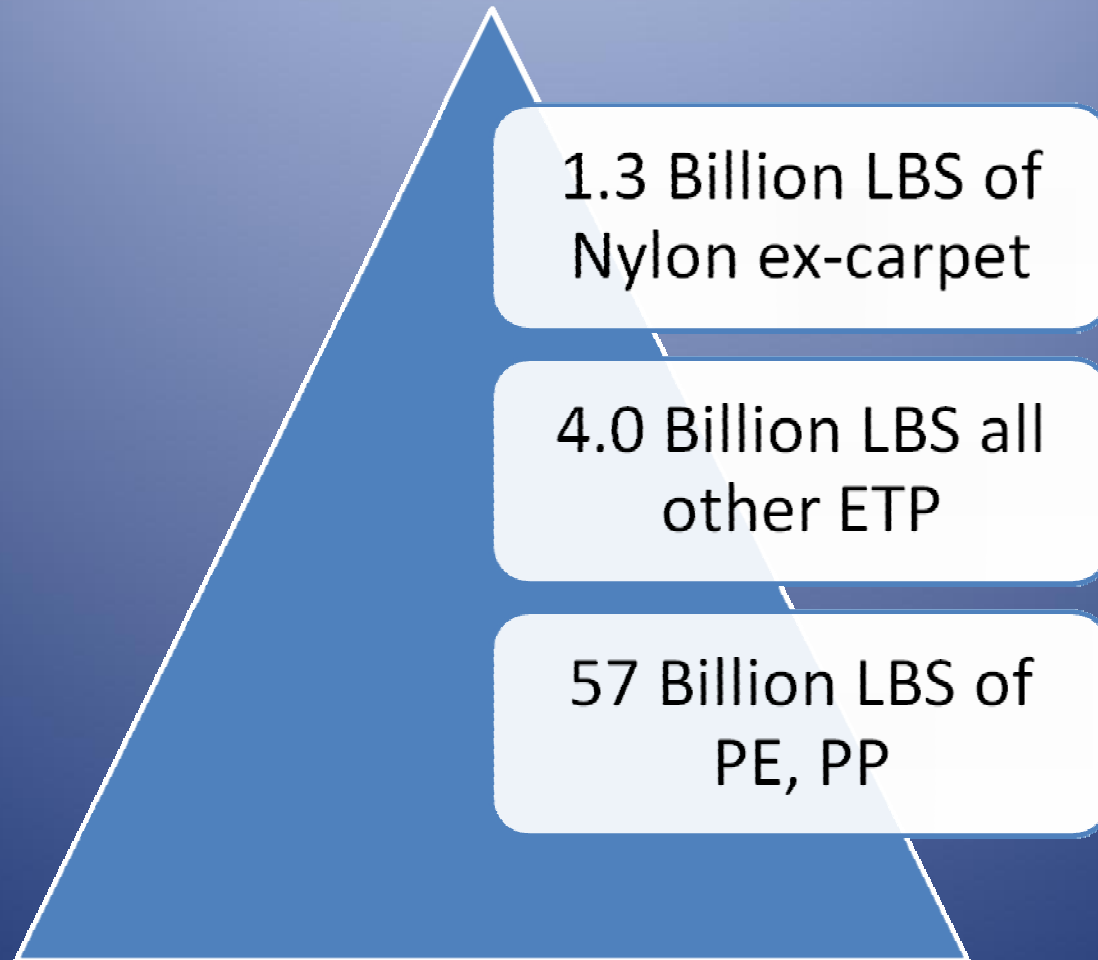
Worcester, MA

Opportunities for Post Consumer Nylon Fiber

- Overview of ETP markets in the US
- The important role of Nylon Polymers
- Key enduse markets for nylon
- Is there a fit for PCN

NA Sales of Plastics 2007

108 Billion lbs.



1.3 Billion LBS of
Nylon ex-carpet

4.0 Billion LBS all
other ETP

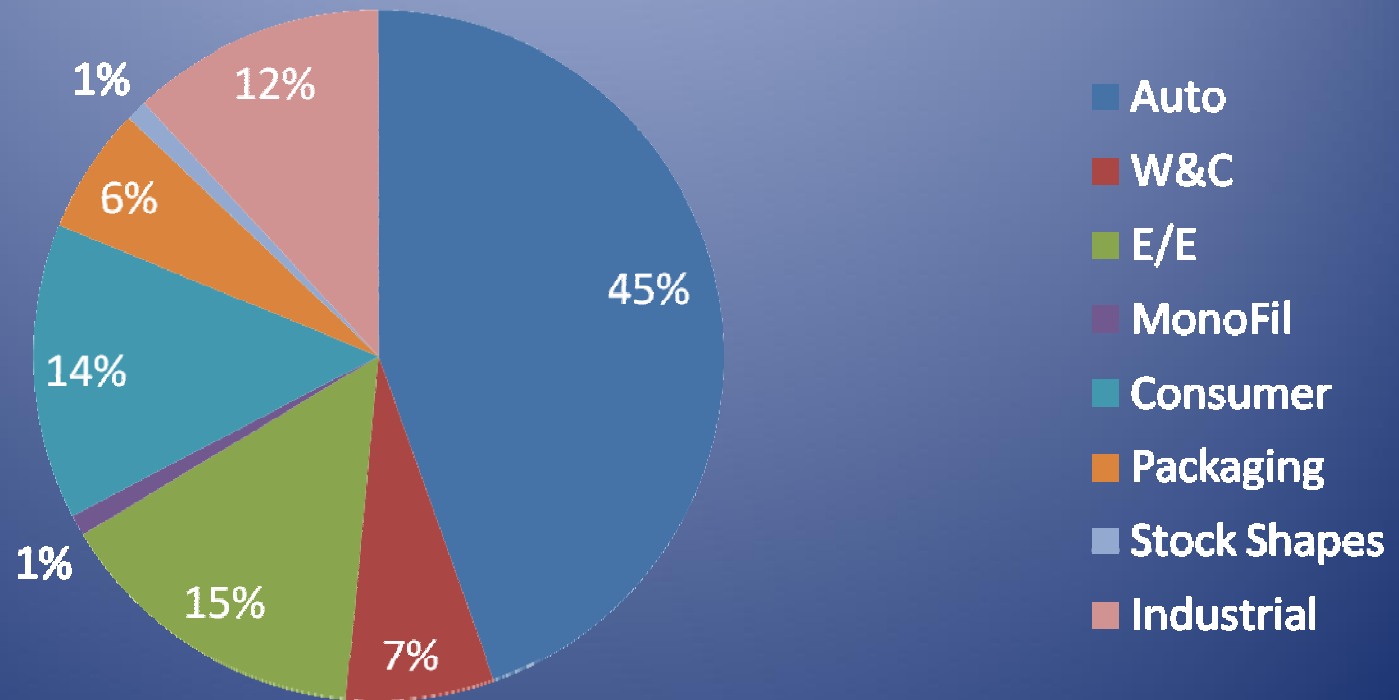
57 Billion LBS of
PE, PP

Major Nylon Markets

- Automotive (some est. up to 50% of applc)
- Electronics (25%)
- Film (Packaging)
- Stock Shapes (Sheet Rod Tube)
- Industrial
- Monofilament
- Power tools / Lawn Garden
- Wire & Cable

Nylon Use by Market 2007 – 1.3 Billion lbs.

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Market Characteristics

- Heavily Specified by enduse
- Performance oriented applications
- Agency recognition (UL, FDA, Auto)
- Broad formulation base, many compounds
- 700 Million lbs. of compounds

Automotive Markets

- Under the Hood
 - Intake Manifolds, Radiator tanks,
Engine covers
- Engine Electrical Components
- Exterior Body - alloys and blends with nylon
- Average US auto uses 300 lbs. of plastics
- 39 types of plastic used but only 10 make up 75% of weight - (nylon is one of those)

The Automotive Profile

- Specifications on a 3 yr. design cycle
- Approx. 25 lbs. of nylon per vehicle
- Most applications are “Black” – favorable to recycle content.
- Post industrial recycle is used extensively

Industrial Markets for Nylon

- Fasteners
- Fittings
- Building and Construction
- Mechanical Components (chain, gears...)
- Shoot and Ship applications

How will PCN enter the ETP Mkts.

- Separation technology is key
- Most compounders unable to work with Fluff
- Densification will be required – most would prefer pellets
- Characterization of PCN is needed
- Ability to differentiate PCN as a sustainable polymer

Where will the applications develop?

- Processor – Enduser (specifications in one place)
- Shoot & Ship applications
- PCN as a blend for compounding
- PCN as a stand alone “Sustainable Product Line” (Nylon producers, Tier one compounders)
- Develop applications with OEM’s which are then pulled through

OEM “buy in” is Key to Success

- Ford takes 50 million PET bottles into GOR's (grille-opening reinforcements) Petra / BASF – started in the early 90's
- Challenge automotive OEM's to look at PCN for next generation “Intake manifolds”
- FROM CARPET TO ENGINE COMPONENTS
(IT CAN HAPPEN!!)