Who we are

- Established in 1997
- 2007 became part of the RAVAGO Group
- The NAFTA manufacturing business of Ravago SA, Arendonk Belgium
- Compounding, Recycling and Tolling in the NAFTA region
- 200+ million pounds of production capacity
- 2 primary areas of operation, TN, OH & TX
Ravago Facts

- Privately owned company founded in 1961
- 30,000 customers in 80 countries
- Over 4000 employees globally
- Over 1000 employees in NAFTA
- Over 33% of employees are in Manufacturing at RMA
• Manchester, TN
  – ETP Compounding, twin screw
  – Tolling
  – Licensed Manufacturing

• West Unity, OH (Trinity)
  – FCM, specialty wire and cable

• South Houston, TX (Almeda Rd)
  – Commodity MB, roto grinding, FCM’s + Twins, Tolling

• North Houston, TX (Waller, TX)
  – Ethylene and Propylene recycling
  – Servicing producer plant scrap needs.
Facility Information

- 330,000 sq ft. set on 21 acres, 1 hour from Nashville, TN
- 90MM lbs of total compounded product capacity
- Currently 70% capacity utilization
- 100% Twin Screw “Super Compounders”
- 5 Production lines
- 4 Laboratory lines
- Flexibility in both product recipe & lead times
- Fully UL authorized and ISO 9001-2000 registered
- AALA accredited laboratory
- 24/7 operation
- Technical Service capabilities
Laboratory Services

Ravago Manufacturing Americas, LLC

5/4/09
Testing Capability

- ISO testing
- Color (CIELab)
- Density/specific gravity
- Melt flow
- DSC/TGA
- FTIR Spectroscopy
- Extractables
- Microscopy
- Moisture content
- Accelerated Weathering
- Rheometry

- Izod & Charpy impact
- Heat distortion temp.
- Flexural modulus/strength
- Tensile strength/modulus
- Elongation
- Ash content
- Shrinkage
- Heat aging
- Multi-axial Impact
- Relative viscosity
EnViramid™

NYLON COMPOUNDING FEEDSTOCK
NEW HORIZONS

- ENVIRAMID™ RECYCLED RESINS
  PROTECTING THE ENVIRONMENT
CRUDE OIL ORIGIN
REFINERY (no new construction in past 30 years)
ENERGY PRODUCTS – PLASTIC DERIVATIVES
NYLON EXTRUSION

- PELLETS
- PLASTIC APPLICATIONS
- TEXTILE APPLICATIONS
- FIBER
- YARN
- CARPET
- (TUFTED, WOVEN)
CARPET

- ORIGINAL INSTALLATION
- REMODEL
- PULL UP – LANDFILL DIVERSION
- COLLECTION – SORT, IDENTIFY, BALE – TO PROCESSOR
- PROCESS
INCOMING BALES
CARPET RECLAMATION

- RAVAGO PROCESS
- SIZE REDUCTION
- COMPONENT SEPARATION
- EXTRUSION – MELT FILTERED PELLETS
CARPET CONSTRUCTION

CARPET FIBER RECLAIMATION

1. COLLECTION
2. SORTING/IDENTIFY FACE FIBER
3. BANDING
4. SIZE REDUCTION – OPENING
5. GRINDING FOR ADDITIONAL SIZE REDUCTION
6. SEPARATING COMPONENTS
7. EXTRUSION OF FIBER
8. PELLETS
ENVIRAMID NYLON 6
ENVIRAMID NYLON 66

- COMPOUNDING FEEDSTOCK
- BLEND AGENT TO EXTEND PRIME
- ALLOY AGENT
NEW HORIZONS

POST CONSUMER NYLON FEEDSTOCK TO MEET THE GROWING DEMAND FOR POST CONSUMER CONTENT IN AUTOMOTIVE, INDUSTRIAL, RECREATIONAL AND CONSUMER PRODUCTS.
CONSUMER APPLICATIONS
INDUSTRIAL APPLICATIONS
FILTRATION APPLICATIONS
AUTOMOTIVE APPLICATIONS
RECREATIONAL MOTOR SPORTS
REDUCING THE CARBON FOOTPRINT
REDUCING THE VOLUME OF CARPET GOING INTO AMERICAS LANDFILLS
100% POST CONSUMER, SUSTAINABLE GREEN PRODUCT
MEETING THE INDUSTRY REQUIREMENTS FOR POST CONSUMER CONTENT