

ECO-FLEX™ RTPV

**Automotive Market
Presentation**

Recycling with ECO-FLEX™ RTPV Thermoplastic Elastomer

Automotive Market

An Unusual Way to Cut Costs

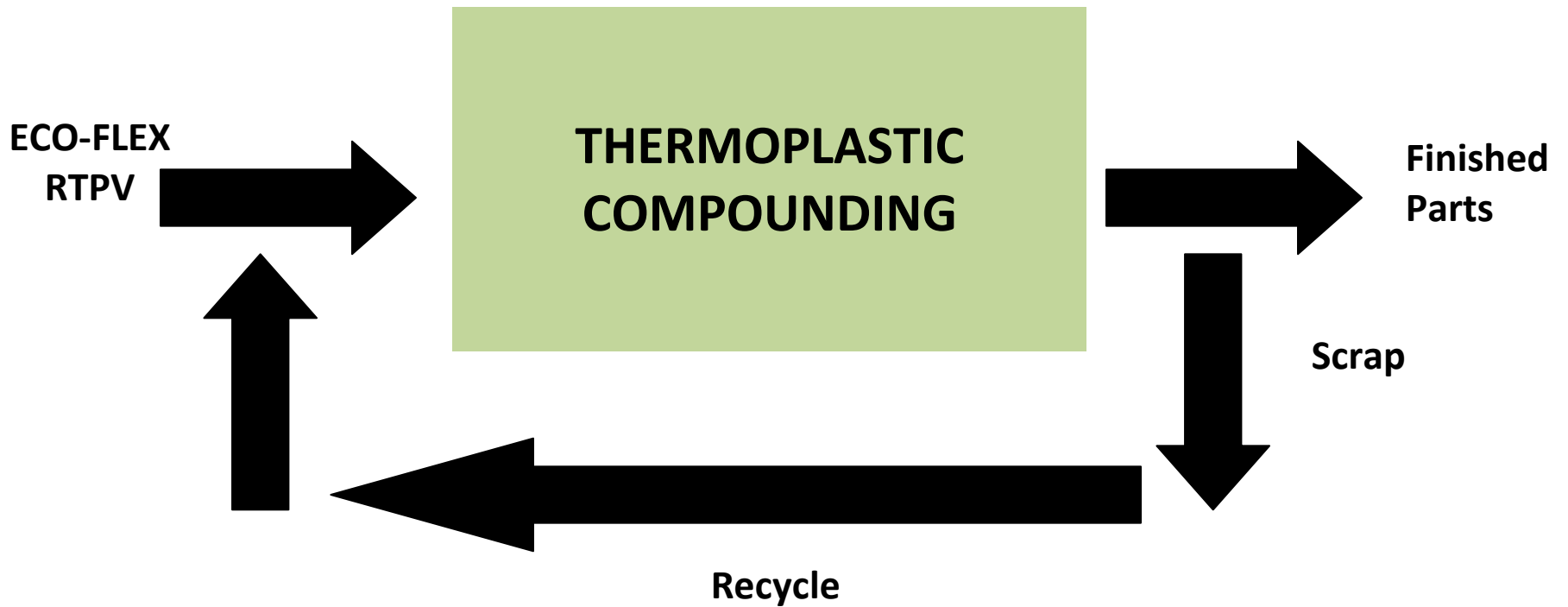
SYNESIS

Benefits

- **No Compounding Required**
- **Rubber Performance**
- **Lower Finished Part Cost**
 - **Faster Cycles**
 - **Recyclability of Scrap**
 - **Lower Specific Gravity**
- **Design Flexibility**
- **Use of Post-Consumer Recycled Rubber**
- **Easily recyclable**
- **Minority Content**

SYNESIS

No Compounding Required



SYNESIS

Rubber Performance Properties

- **COLOR: BLACK**
- **SHORE HARDNESS: 45A -40D**
- **GOOD MECHANICAL PROPERTIES**
- **GOOD CHEMICAL RESISTANCE**
- **EXCELLENT UV AND OZONE RESISTANCE**

SYNESIS

Lower Finished Part Cost

- Faster Cycles
- Recyclability of Scrap
- Lower Specific Gravity

Cost/Performance Comparison 12" Trash Can Wheel

| Item | Virgin SBR | ECO-FLEX |
|---------------------------------|------------|----------|
| Hardness, Shore A | 80 | 80 |
| Wear Test, 50k Cycles | Pass | Pass |
| Cold Drop Test, -20 °C | Pass | Pass |
| Specific Gravity | 1.4 | 1.00 |
| Tread Weight, g | 985 | 240 |
| Cycle Time, Sec | 360 | 40 |
| Scrap Rate, % | 15 | <1 |
| Finish Wheel Cost, \$ per Wheel | 2.87 | 1.52 |

SYNESIS

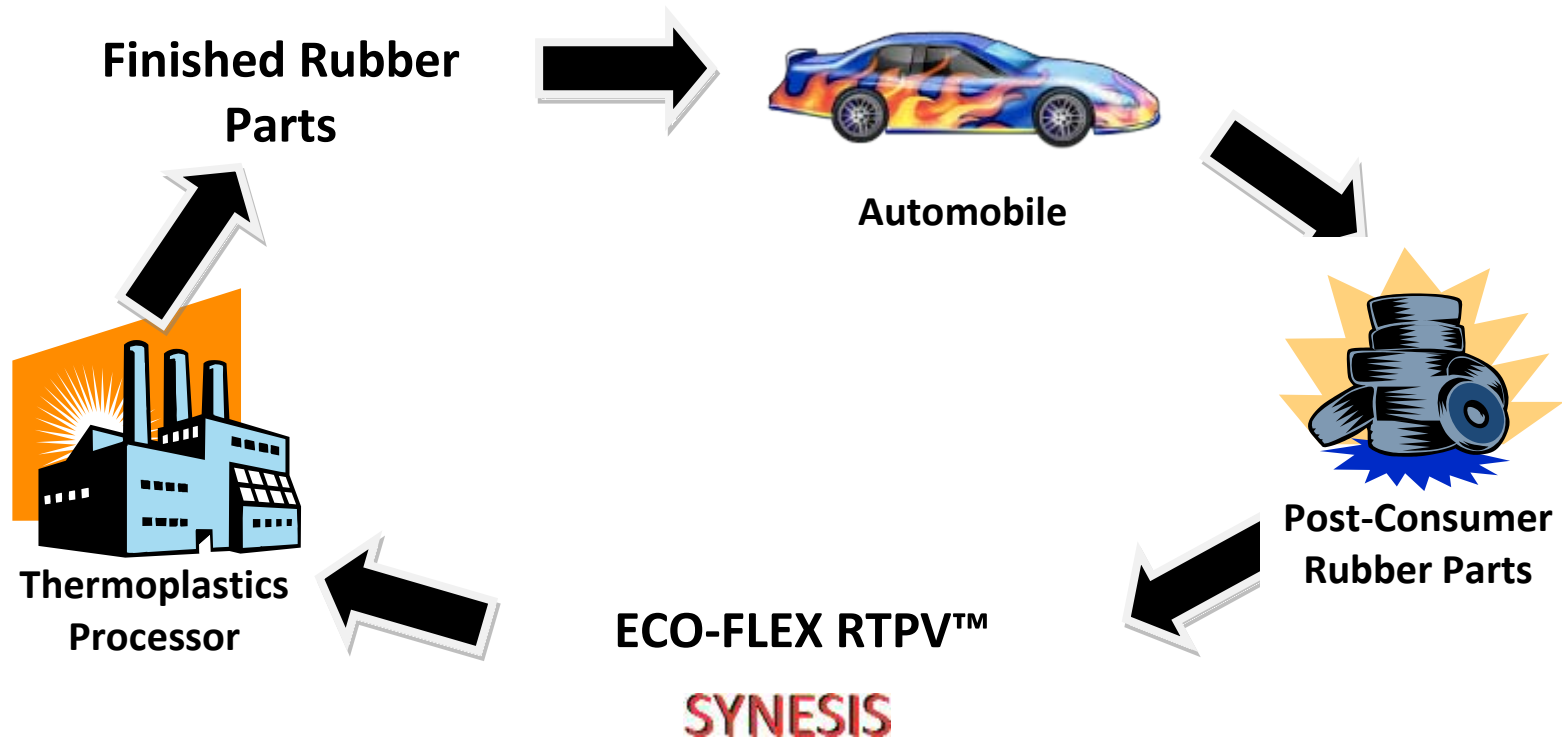
Use of Post-Consumer Recycled Rubber



Environmental Benefits Recycling vs. Landfill/Stockpiling



- Prolongs Life of Landfills by Reducing Solid Waste
- Protects the Environment from the Fire and Health Hazards of Scrap Rubber Stockpiles



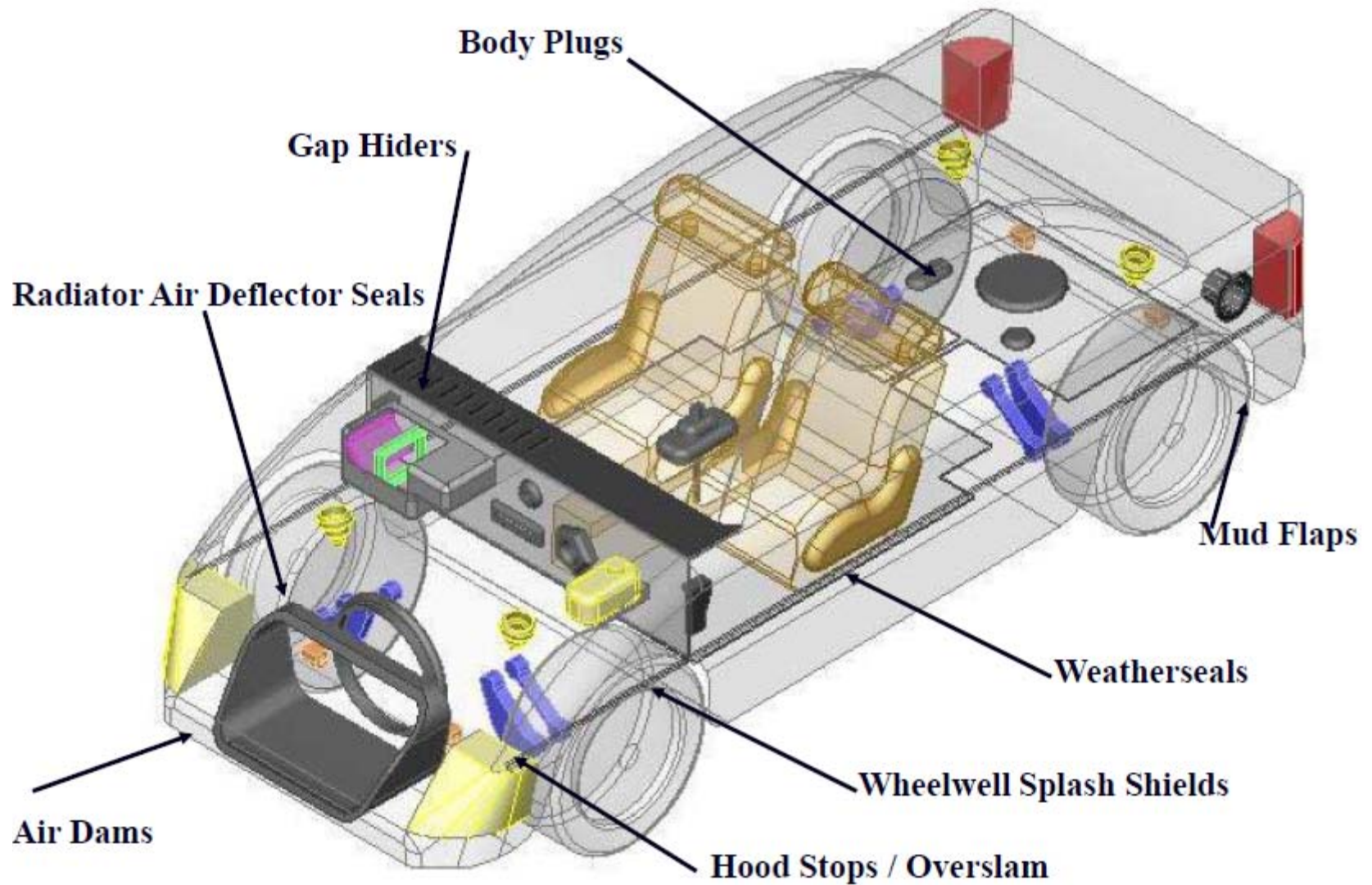
TARGET APPLICATIONS

Automotive

- **Air Dams, Chin Spoilers, Bumper Extensions**
- **Radiator Air Deflectors, Splash Shields, Mud Flaps**
- **Grommets, Bumpers, Body Plugs, Brake Pedal Pads**
- **Cowl Screens, Gap Hiders, Weather Seals**
- **Hood Hinge Covers, Strut Cover Caps, Dust Covers**

SYNESIS

ECO-FLEX RTPV TARGET APPLICATIONS



SYNESIS

ECO-FLEX™ RTPV TARGET AUTOMOTIVE APPLICATIONS



Brake Pedal Pad



Thermoformed Splash Shield



Mudflaps



Body Plug



Strut Dust Cover



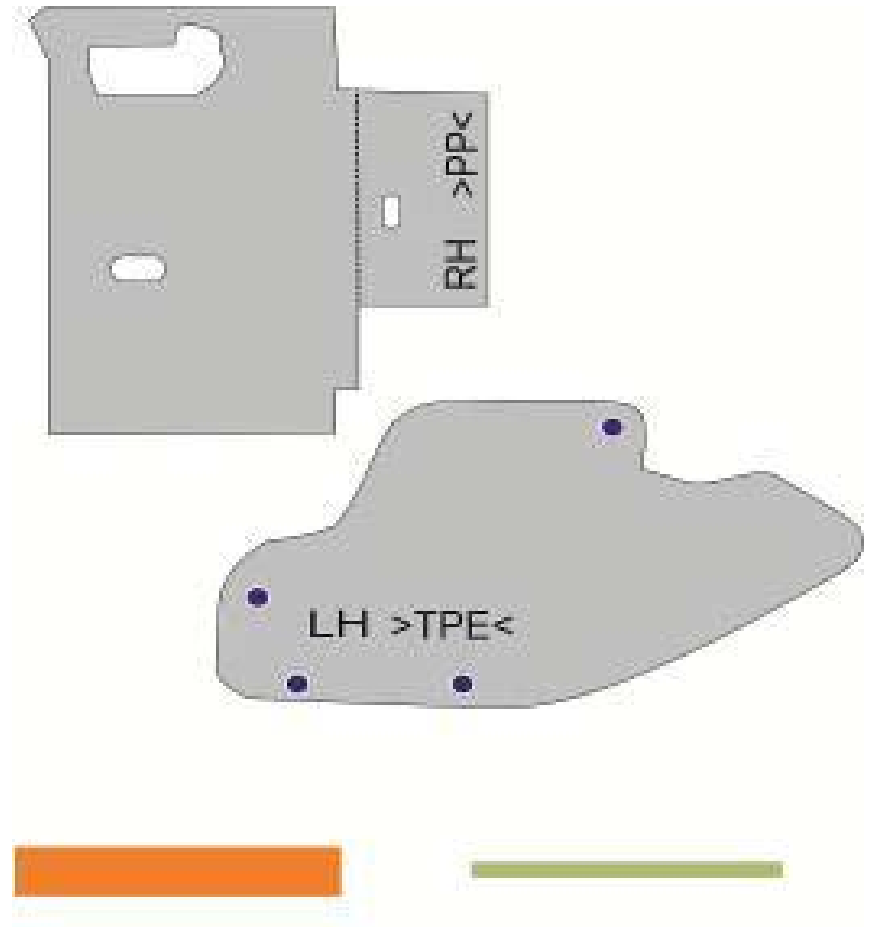
**DIE CUT/LAMINATED FOAM
ACOUSTICAL PAD**

SYNESIS

ECO-FLEX™ RTPV TARGET AUTOMOTIVE APPLICATIONS

All Die Cut Parts

- Benefits
- Aesthetically Pleasing
- Recycle Content Product “Green” Initiatives
- Recyclable
- Can be Thermoformed
- Reduced Part Weight 1/3 to 1/2 The Thickness with same performance as Thermoset Rubber. 3-5mm can be 1.5 -2.0mm
- Potential Impact : 30 -50% Cost Reduction Vs. Thermoset Rubber



Rubber Thickness vs. ECO-FLEX™

SYNESIS