

### > APPLICATION BULLETIN

### **Post-Consumer Recycled (PCR) Content Materials** for Packaging Applications

For OEMs and molders, keeping sustainability top-of-mind while designing and manufacturing packaging applications is crucial. Consumers are increasingly mindful of environmental impact when purchasing products, and express strong preference for brands that are making efforts in this space.

Using recycled content materials in packaging is one method to address consumer preference, and PCR materials can be integrated into blow molded bottles, caps and closures, flexible pouches and more.



Post-consumer recycled content is generally defined as any material that is recycled after its commercialization or use in the marketplace. Commonly recycled materials are PET, LDPE, HDPE, PP and TPE.

## Benefits of integrating PCR content into packaging applications include:

- Reduced carbon footprint
- Decreased energy usage
- Advancement of the circular economy

# PCR content is prominently used in packaging segments including:

- Food & Beverage blow molded bottles, caps and closures, flexible pouches
- Personal Care & Cosmetics blow molded bottles, caps and closures, recycled tubes
- Home Care blow molded bottles, caps and closures, flexible pouches, zipper pouches
- Electronics shipping trays
- Industrial canisters, pails



#### **RESINS FROM AVIENT DISTRIBUTION SUPPLIERS**

| Avient         | reSound <sup>™</sup> R VX | TPE             | Utilizes 25–40% recycled content;<br>post-consumer recycled content grade<br>formulated with recycled ocean plastics |
|----------------|---------------------------|-----------------|--|
| Avient         | reSound <sup>™</sup> R DY | TPE             | Contains 9–39% post consumer<br>recycled content   |
| Covestro       | Bayblend®                 | PC/ABS          | Contains 10–35% post-consumer<br>recycled content  |
| LyondellBasell | Hostacom                  | РР              | Contains post-industrial or post-consumer recycled PP  |
| LyondellBasell | Hostacom                  | TPO (POE)       | Contains post-industrial or post-consumer recycled TPO   |
| Star Plastics  | ReStart <sup>™</sup>      | PC, ABS, PC/ABS | Contains 35–50% post-industrial or post-consumer recycled content  |

### **COLORANTS & ADDITIVES FROM AVIENT**

| Rejoin <sup>™</sup> PCR Masterbatch colorants                                  | Colorants made with PCR polyolefin as a carrier<br>resin; allows for 100% PCR packaging; combines<br>pigments & additives into one solution |
|--|---|
| ColorMatrix <sup>™</sup> rePrize <sup>™</sup> IV Builde <mark>r for PET</mark> | Liquid additive for manufacturing rPET that<br>improves quality of recycled material and reduces<br>energy needed to produce rPET           |
| ColorMatrix <sup>™</sup> Optica <sup>™</sup> Toners & Colors                   | Colorants added to PET & rPET materials to fix issues with color variations and yellowing   |

#### **HOW WE CAN HELP**

Our team of engineers, field specialists, designers and color technologists are here to help:

- understand your specific application needs, and unpack how to incorporate PCR materials
- recommend best-fit materials from a broad portfolio of polymers, colorants and additives
- troubleshoot technical issues, such as warping, flow lines and yellowing



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1.844.4AVIENT www.avient.com



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