reSound™ Ultra-Low Carbon Footprint Thermoplastic Elastomers

Developed to support a global shift toward net zero CO₂ emissions for next-generation products, these reSound™ TPE formulations deliver negative, neutral, or near-zero carbon footprint values. The first grades in the series offer an industry-first product carbon footprint (PCF) between -0.46 to -0.02.

The ultra-low PCF of these reSound TPEs measures the cradle-to-gate stage of the product life cycle. Calculated using the ISO 14067:2018 standard, the greenhouse gas (GHG) emissions are lowered by carbon sequestration and Avient’s green manufacturing practices. The PCF value of these TPEs may be used as an input to determine the total GHG emissions generated by a product over its entire life cycle. The initial formulations are available in durometers 60 and 80 Shore A, and offer comparable performance to traditional counterparts to help customers meet application needs and reduce total carbon emissions.

reSound ultra-low carbon footprint TPEs are available globally, and each PCF is location specific to more accurately support carbon neutrality efforts. These sustainable materials are also customizable, but changes to color or formulation to achieve application-specific needs will require the product carbon footprint to be recalculated.

KEY CHARACTERISTICS
- Negative, neutral, or low PCF
- Available in 60 and 80 Shore A
- Performs like traditional TPEs
- Naturally opaque and easy to color
- Suitable to injection mold, or overmold onto PP and PE

MARKETS & APPLICATIONS
The portfolio of reSound ultra-low carbon footprint TPEs is ideal for brand owners and manufacturers who prefer to use a more sustainable material in personal care, household appliance, consumer electronics, and consumer packaging applications.
TECHNICAL PROPERTIES

<table>
<thead>
<tr>
<th>Manufacturing Plant Location</th>
<th>reSound RS0200-9001 80</th>
<th>reSound RS0200-9001 60</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gaggenau</td>
<td>McHenry</td>
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<tr>
<td>Cradle-to-Gate PCF*</td>
<td>-0.46</td>
<td>-0.40</td>
</tr>
<tr>
<td>Hardness, Shore A</td>
<td>80</td>
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<tr>
<td>Overmold Substrate</td>
<td>PP, PE</td>
<td>PP, PE</td>
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</tbody>
</table>

* Calculated according to ISO 14067:2018

COMPARISON TO ALTERNATIVES
Greenhouse gas (GHG) emissions from cradle-to-gate production

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