Husky’s HyPET Recycled Flake (RF) system is specifically designed for manufacturing preforms with high percentages of food-grade recycled PET flake. Enabling significant increases to the amount of post-consumer, recycled PET flake, HyPET RF helps to make PET packaging more sustainable.

No compromise in quality or performance
The challenge in the past has been increasing the recycled flake content in beverage packaging, while still maintaining the highest levels of quality and performance. Husky’s HyPET RF system is specifically optimized to achieve these goals. Plasticizing performance offers superior material homogeneity, while continuous filtering reduces the presence of black specks. With only one melting and extrusion step involved throughout the decontamination and injection process, thermal degradation is minimized and color shift is reduced. Because HyPET RF is built on Husky’s High Performance Package (HPP), it offers the same cycle time, throughput, shot repeatability and weight distribution as our high output platform.

Benefits
- Complete system specifically optimized to manufacture preforms with high percentages of recycled flake
- Leverages Husky’s 30+ years of experience in beverage packaging and complete turnkey system solutions
- No compromise in cycle time or preform quality
- Reduces environmental impact of beverage packaging
- Backed by Husky’s extensive global service and support network
Increased flexibility

HyPET RF technology addresses the specific challenges of manufacturing PET bottles using recycled PET flake, allowing manufacturers not currently using recycled PET flake to introduce this material into their products. For those already using recycled PET flake, this can eliminate some of the manufacturing and quality challenges while enabling an increase in flake content. HyPET RF enables the use of up to 100% recycled flake and delivers consistent quality and performance, even when working with varying grades of recycled material.

Waste and cost reduction

HyPET RF is a molding platform that can lower environmental impact of PET packaging. Unlike food-grade recycled pellets, the food grade recycling process for flake does not involve melting or extrusion. Eliminating the thermal process that overlaps with preform injection reduces energy costs and yellowing. Using a specially engineered screw rather than a typically oversized injection unit achieves the same cycle time as with virgin pellets without any additional energy usage.

HyPET RF is also helping to make PET packaging more sustainable by supporting the bottle-to-bottle recycling process. Bottle-to-bottle is a responsible way of managing the packaging cycle, recognizing its value even after initial use, as a viable alternative to virgin resin.

System details:

- Available on HyPET High Performance Package (HPP) systems
- Up to 100% food-grade recycled PET flake can be processed with no compromise on cycle times, throughputs or part quality
- Superior blending capacity of the screw brings high material homogeneity and less thermal degradation

- Integrated melt filtration minimizes black specks and other inclusions that can negatively influence bottle quality
- Increased recycled content can be processed without the need to upsize the extrusion screw, keeping investment and energy costs down

“The preforms produced on Husky’s HyPET RF system significantly reduced black specks and dramatically minimized failures during bottle blowing, when compared to preforms produced on standard, non-specialized systems using the same blend of recycled flake.”
—Bruce Sampson, General Manager, Southeastern Container, one of Husky’s development partners

Huskys HyPET RF system demonstrates superior performance when compared to conventional systems running recycled flake.

<table>
<thead>
<tr>
<th>Recycled Flake</th>
<th>Cycle time (sec)</th>
<th>Visible homogeneity defects (Occurrences per shot)</th>
<th>Blow molding defects (Occurrences per million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>17</td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td>20%</td>
<td>7</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>50%</td>
<td>33</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>20%</td>
<td>350</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Performance example—varying % of recycled flake

Husky Injection Molding Systems
www.husky.ca

Husky’s HyPET RF system demonstrates superior performance when compared to conventional systems running recycled flake.