

PE composite with 30% recycled beverage carton as reinforcement supplemented with PolyAl also originated from beverage cartons (at least 97.5% recycled material). The suggested processing temperature is 170-190 °C. Drying is necessary before processing (70-80 °C, 3-4 hours).

| Parameter | Method | Unit | Typical value |
|----------------------------------|-------------|-------------------|---------------|
| Melt flow index (190°C/2.16 kg) | ISO 1133-1 | g/10 min | 0.3 |
| Density | | kg/m ³ | 1134 |
| | | | |
| Tensile modulus | ISO 527-1.2 | MPa | 1310 |
| Tensile strength | ISO 527-1.2 | MPa | 24.2 |
| Elongation at break | ISO 527-1.2 | % | |
| | | | |
| Bending modulus | ISO 178 | MPa | 1270 |
| Bending strength | ISO 178 | MPa | 23.6 |
| | | | |
| Charpy impact strength (notched) | ISO 180/A | kJ/m ² | 13.1 |

