

# Introducing New Ciclic® C46

**High-Performance** rHDPE for Durable, Recyclable Heavy-Duty Sacks



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# High-Performance rHDPE for Durable, Recyclable Heavy-Duty Sacks

**Ciclic® C46** leverages over 20 years of GCR's expertise in mechanical recycling to deliver high-quality rHDPE tailored for heavy-duty sack applications (FFS). Engineered to meet the highest standards of package integrity and recyclability, Ciclic® C46 ensures consistent and reliable performance, even in the most demanding industrial environments.

#### **Sustainability & High-Performance:**

100% Pre-Consumer Recycled HDPE.

**Lower Carbon Footprint:** Formulations can replace 50% to 100% of virgin HDPE, achieving up to 23% reduction in CO₂ emissions compared to the entire FFS structure—without compromising packaging strength.

#### Ideal for Tough Conditions:

**Tear, Puncture, and Moisture Resistance:** Designed to handle the most demanding industrial environments, ensuring your packaging holds up.

#### **Consistency and High-Quality Production:**

Low Gels content, high consistency and optimal processability.

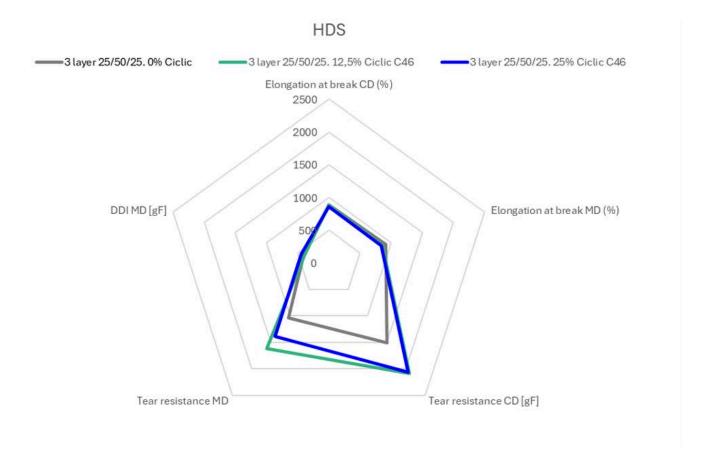


## Ciclic® rHDPE for Heavy-Duty Sacks

#### **Performance Benchmark**

Structure 100 µm	Layer A 25%	Layer B 50%	Layer C 25%
Virgin Formulation	100% LLDPE	50% HDPE + 45% LLDPE +5% TiO2MB	100% LLDPE
Formulation with Ciclic C46 in layer B	100% LLDPE	25% HDPE + 45% LLDPE + <b>25% Ciclic</b> <b>C46</b> +5% TiO2MB	100% LLDPE
Formulation with Ciclic C46 in layer B	100% LLDPE	45% LLDPE + <b>50 %Ciclic C46</b> +5% TiO2MB	100% LLDPE

Results demonstrate that replacing virgin HDPE with Ciclic® C46 rHDPE in layer B maintains elongation and Dart Drop Impact (DDI) properties, while even enhancing tear resistance in both directions.



All data presented are based on tests conducted by the GCR Innovation Hub. The information provided in this product sheet is intended for guidance only and does not constitute a warranty of any kind.

#### A more sustainable packaging solution

#### **Key features:**

- Material: 100% pre-consumer recycled HDPE.
- Recycled Content: Up to 100% of rHDPE
- Virgin Material Replacement: Can replace 50% to 100% virgin HDPE.
- CO2 Emissions Reduction: Up to 23%.
- Recyclability: 100% recyclable material.
- Printability: Translucent base color provides flexibility for custom coloration.

#### **Performance Advantages:**

- Durability: Withstands multiple cycles of use without losing strength.
- **Processing:** Easy to process with a consistent quality, ensuring smooth production operations.
- **Mechanical properties:** Superior tear resistance paired with excellent puncture and moisture resistance.
- **Applications:** Ideal for heavy-duty industrial sacks, ensuring that even the toughest conditions won't compromise your product.

#### **Certifications**











# GCR, Your Trusted Partner for Sustainable Plastic Solutions

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