



Post Consumer Resin in Flexible Packaging

Advancing the Circular Economy through PCR incorporation

Applications:

- Heavy duty sack
- Collation shrink
- Hand stretch
- Protective packaging/e-commerce
- Agricultural film
- Food packaging





Polyethylene offers a unique opportunity to move from multi-material to recyclable, monomaterial films in a wide range of applications. Adding PE-PCR content takes it a step further and closes the loop on the circular economy.

Our dedicated circular economy team has the expertise on how best to use recycled PE in packaging while retaining required performance properties. Work with us at our Centre for Performance Applications, where we support applications development work including film structure design and trial film production, conversion and testing.

Our PCR portfolio includes a broad suite of linear low and low density polyethylene (rLLDPE/LDPE) and, starting in mid-2021, FDA-compliant high density polyethylene (rHDPE).

Ready to Recycle Resins

Choose from our portfolio of virgin resins that work with PCR content to enhance film physical performance.

Grade	Type	Description
SURPASS® VPs412-A	Octene LLDPE	Robust sealant with high caulkability for fast sealing and fast setting
SURPASS VPsK914-A/C	Octene LLDPE	Ultra-durable performance sealant for high-speed packaging lines
SURPASS SPsK919-C/F	Octene LLDPE	Exceptional abuse resistance for heavy duty applications
SURPASS SPs116-C/D	Octene LLDPE	All-purpose, ultra versatile performance resin to replace conventional LLDPEs
SCLAIR® FP120-CE	Octene LLDPE	All around performer with toughness and strength plus easy processability
SCLAIR FG220-A	Octene LLDPE	Exceptional toughness - ideal workhorse for cast film
NOVAPOL® PF-0118-FI	Butene LLDPE	Exceptional toughness and strength over conventional butene LLDPEs



Centre for Performance Applications

NOVA Chemicals' 87,000 square foot Centre for Performance Applications is dedicated to polyethylene (PE) applications development work in a range of rigid and flexible markets. The Centre features state-of-the-art extrusion, conversion, molding and test equipment that simulates customers' manufacturing methods and application performance under real-world conditions.

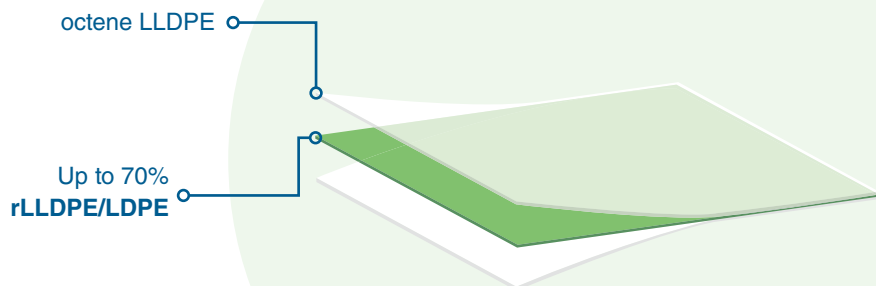
Our PCR-related capabilities include:

- Six film lines including a 9-layer blown film line
- Converting equipment including vertical and horizontal pouching lines, a semi-commercial shrink tunnel, and a laminator
- Physical, analytical, and rheological test labs
- Gel camera

Shrink films with up to 40% PCR incorporation (non-FDA rLLDPE/LDPE)

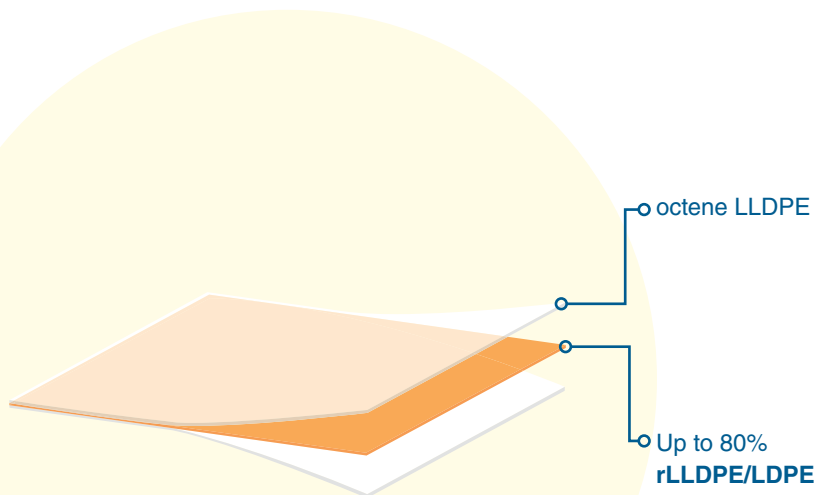
Tailored design to meet specific application requirements

- Package integrity comparable to 100% virgin films
- Aesthetics suitable for branding
- Film design can be optimized for a broad range of shrink package formats



Heavy Duty Sack with up to 40% PCR Incorporation (non-FDA rLLDPE/LDPE)

Reliable performance for a wide range of HDS applications



- Performance suitable for supply chain rigors
- Aesthetics suitable for branding
- PCR content does not impact hot tack or seal performance



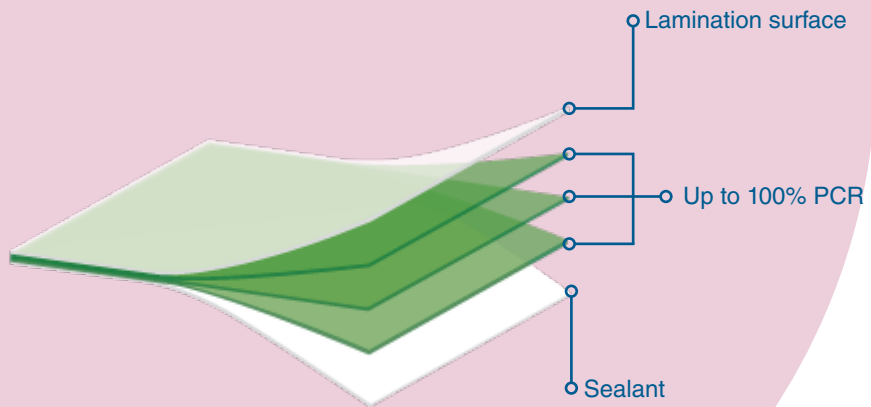
Laminated Stand-Up Pouch with 20-40% PCR

FDA-compliant PCR paves the way for recycled content in food contact applications

- Laminated structure provides a stiffer pouch and improved print quality compared to coextruded pouch
- Up to 20% PCR with FDA-compliant rHDPE material
- Up to 40% PCR with a blend of rLLDPE/LDPE and rHDPE
- PCR-free print web ideal for reverse print applications

3-Layer Print Web

The print web will generally be 100% virgin resins for package print aesthetics. It may be traditional blown film, MDO or BOPE.



5-Layer Sealant Web