

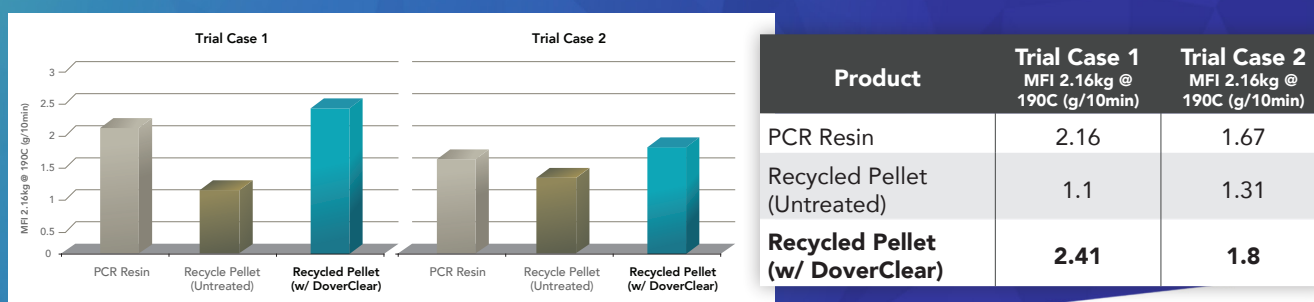
# DOVERCLEAR™

Reduce Gels and Upcycle  
Your Recycle Stream

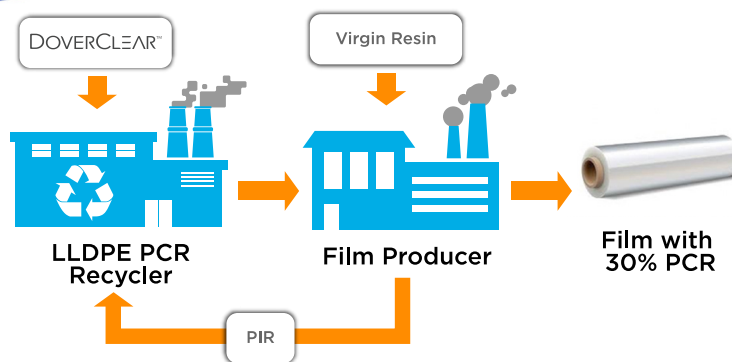
With increased focus on inclusion of Post-Consumer Resin (PCR) and Post-Industrial Resin (PIR) into films, so increases the problems associated with recycle streams that can negatively affect the overall physical properties of film. Defects in the form of cross-linked polymers, known as "gels," will reduce the film strength, and often more resin (i.e. thicker film gauge) is needed to compensate.

Once a gel forms, it cannot be undone. Therefore, the key to reducing gels, is to prevent them in the first place. **DoverClear™ is a polymeric, liquid phosphite that reduces gels in film by up to 83% for recycle streams containing 30% recycle content.**

With DoverClear™ the Melt Flow Index (MFI) is preserved through the PCR/PIR pelletizing process.



## Optimum DoverClear Application



## DoverClear™ 800

Workhorse recycling grade antioxidant for use in both LLDPE and LDPE

**DoverClear™ 800** provides superior performance to existing virgin resin by stabilizing melt flow and retaining resin integrity. When used in PCR and PIR, DoverClear™ 800 has been shown to significantly reduce gels, allowing for upcycling of the resin stream.

Doverclear™ is offered as a masterbatch up to 8% loading in LLDPE. Typical let down ratios range from 0.5% - 4.0%, depending on the application and equipment configuration. Other resin carriers are available.

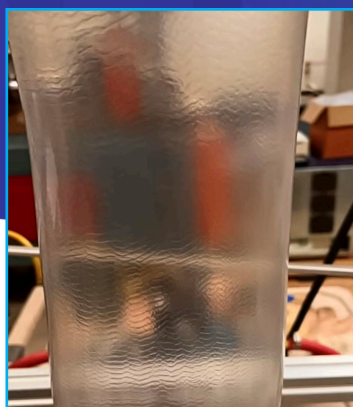
FDA approved (LLDPE only)

# DOVERCLEAR™

PFAS-Free and  
Siloxane-Free  
Processing Aid

When a polymer is extruded, it can undergo shear stress, leading to surface defects, called melt fracture – sometimes called “shark skin,” etc. A polymer process aid is used to improve the surface of the polymer. Typically these process aids have been fluoropolymers, which are a subset of perfluoroalkyl substances (PFAS). PFAS are under increased public and regulatory scrutiny and are being phased out.

Dover Chemical introduces the DoverClear™ line of polymer process aids that are **PFAS-free** and **siloxane-free** for processing of polyethylene sheet and film. DoverClear process aids clear melt fracture as well or better than fluoropolymers without sacrificing throughput due to over-lubrication. The ingredients in DoverClear are **FDA approved\*** and are proven in polyolefin systems. The DoverClear line of products can clear melt fracture in a broad range of PE films, both metallocene and Ziegler-Natta catalyzed, across a wide-range of melt-indexes.



**Blown Film Without Process Aid**



**Blown Film with DoverClear™**

1-hexene mLLDPE, 1.0 MI

## DoverClear™ 840

Standard grade of PPA offered in masterbatch form in LLDPE carrier.  
Recommended for resins with a melt index >1

## DoverClear™ 841

High-performance grade of PPA offered in masterbatch form in LLDPE carrier.  
Recommended for resins with a melt index <1

DoverClear process aids are available in a wide variety of forms and carrier resins, which can be custom tailored to individual lines. Typical let down ratios range from 0.5% - 2.0%, depending on the application and equipment configuration.

\*FDA approval in LLDPE

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