



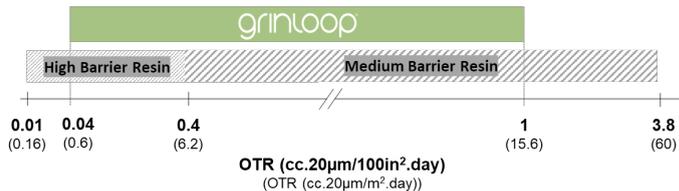
# grinloop®

## What is Grinloop®?

Grinloop® ; is a highly engineered Polyethylene-based gas barrier resin (O<sub>2</sub>, Aroma), used to produce sustainable multilayer products.



## Unlock the Power of Precision



Different grades of GrinLoop® enable producing sustainable packaging for a wide range of OTR requirements, applications where a combination of traditional materials have been used in non-recyclable designs.

# Upgrade Your Barrier Packaging with GrinLoop® resins family

## Reduce Plastic Use

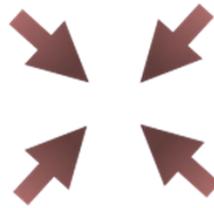
Grinloop®'s mechanical and chemical compatibility with PE enables thinner films without compromising barrier or strength (APR approved up to 30%).

## Reduce Carbon Footprint

Replace Nylon or PVDC with Grinloop® medium to high barrier grades to cut raw-material CO<sub>2</sub>e\* by up to 35%.

## Reduce the structure complexity

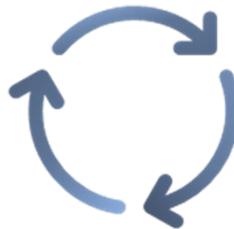
GrinLoop® lets standard 3-layer lines produce high-barrier films in-house for certain applications, supporting a more localized supply chain.



### REDUCE

## Improving Durability of Package

GrinLoop®'s enhanced flexibility endurance improves package durability, preventing barrier drop from stress and deformation over time in service life.



### REUSE

## Eliminate Problematic Polymers

Replace PET or Nylon with GrinLoop® to maintain barrier performance in fully recyclable PE structures.

## Improve the quality of Recyclates

GrinLoop® products keep recyclates' properties intact, even in 100% GrinLoop® batches, enabling an added value circular economy.



### RECYCLE

\* CO<sub>2</sub>e is a measure of the effect of different greenhouse gases (GHGs) on the climate.



grinloop®

## Properties of GrinLoop® grades\*

Properties	Unit	GLZ74	GLHP09
<b>Physical properties</b>			
Density	g/cm <sup>3</sup>	1.03	1.05
MFI (@ 210 °C, 2160 g)	g/10 min	0.85	0.9
HLMI (@ 210 °C, 21600 g)	g/10 min	35	39
<b>Thermal properties</b>			
Melt temperature	°C	190	190
<b>Barrier properties</b>			
Oxygen Transmission Rate (23 °C, 0% RH)	cc.20 µm / 100in <sup>2</sup> .day.atm	0.5	0.03
Water Vapor Transmission Rate (38 °C, 90% RH)	g.mm/ 100in <sup>2</sup> .day.atm	0.032	0.038

\* Other specialty grades are available. Please contact your account manager.

### GrinLoop® for Non-Food Application

Thanks to GrinLoop versatile properties, such as chemical and oxygen barrier properties, and its stability of properties in different environments, GrinLoop® can be applied in different applications in non-food sector such as:

- Multilayer Bottles and Jerrycans for Agricultural liquids
- Liners and Geomembranes
- Cosmetic and pharmaceutical application
- Pipes



Contact us: [info@axipolymer.com](mailto:info@axipolymer.com)

[www.grinloop.Axipolymer.com](http://www.grinloop.Axipolymer.com)

Tel: +1 438 929 9400

Montreal, QC, Canada