

Patented • Multifunctional • Sustainable

Rebirth Technology for Non-Recyclable Plastics

A patented multifunctional additive that replaces multiple conventional additives in one formulation — improving product quality, increasing recycled and filler content, and cutting raw material cost.

8+
Functions

75+
Applications

12+
UAE Trials

2–10%
Dosage Range

Discover the Technology →

Explore Applications →



Made From Nature, Engineered for Performance

Therpol is a patented additive composed of 33% sustainably sourced, FSC-certified natural rubber and 66% recycled polyethylene resin — collected, cleaned and mechanically recycled from post-consumer plastic waste. Invented in Brazil and manufactured in Thailand, close to the natural rubber growing belt, Therpol delivers the performance of a synthetic elastomer using materials the industry already needs to divert from landfill.


33% Natural Rubber
(FSC certified)

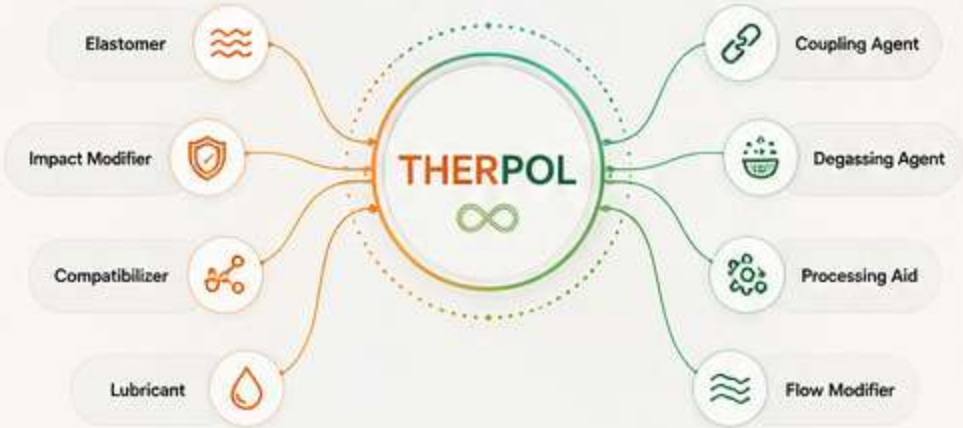

66% Recycled PE Resin


Manufactured in Thailand


Patented Formulation

Eight Additives. One Formulation.

Delivers superior impact resistance at low dosage, strong barrier properties, and full compatibility with polar and non-polar polymers alike.



Built for Where Plastic Is Made — and Remade


Existing Market Applications

Proven performance across compounding, blown film, injection molding, extrusion, fiber, and blow molding — through elastomer, impact modifier, compatibilizer, lubricant, coupling agent, and degassing agent functions.




Recycling Enabler (New Markets)

Restores recycled resin toward virgin-grade quality — improving flow, impact strength and elongation while lowering processing temperature. Increases recycle % in formulations. Acts as an amalgamating agent, combining LLDPE, HDPE, LDPE, ABS, SAN, and Nylon streams without segregation — saving time and labor.



Validated Performance, By the Numbers

Property Value	Value	Method
Density	0.920 ±0.05 g/cm³	ASTM D792
MFI	2.28 g/10 min (190°C / 2.16 kg)	ASTM D1238
Tensile Strength	5.96 MPa	ASTM D412
Elongation at Break	1000%	ASTM D412
Hardness	65 pts (Shore A)	ASTM D2240

Download Technical Data Sheet 

Why Choose Therpol


Industry Validated

12+ successful trials at customer facilities across the UAE.


Independently Studied

Reviewed in an independent market analysis identifying 75+ potential applications.


Proven Manufacturing Partner

Backed by an established manufacturer with close ties to natural rubber supply chains.


Flexible Dosage

2–10% dosage range, compatible with dry blending or melt compounding.

Ready to Transform Your Plastic Formulations?

From first sample to full-scale production — full formulation and process support available.

Talk to Our Experts →

Download Technical Data Sheet 