

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 →



ABOUT THERPOL

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

OUR CORE STRENGTH

Eight Additives. One Formulation.

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



APPLICATIONS

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.



TECHNICAL PERFORMANCE

Validated Performance, By the Numbers

Download Technical Data Sheet



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

WHY CHOOSE THERPOL

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 ↓