



## **Baerlocher Additives for Recycled Polymers**

we add character to plastics

**BÆRLOCHER**



## Active Chemistry - Baerlocher Additives:

## Effective, Efficient, Economical. Baeropol® “One-Packs” Deliver Additive Solutions for Polymer Processing

Plastics create new solutions for the future. Additives play a crucial role in determining processing properties and product quality. Baerlocher supports the plastics industry all over the world by developing and manufacturing high-quality, innovative plastics additives.

### Single Components

Each additive in a Baeropol® Blend performs a specific function in protecting the polymer or enhancing its performance.

### Baeropol® One-Packs

In 1963 Baerlocher invented ready-made blends of additives for the plastics industry. These so-called “One-Packs” include multiple additives for polymer processing such as stabilizers and process aids. Custom blends can be created to meet specific customer demands.



## Why Additives are Important:



**Polymers are Designed by Their Manufacturers with Specific Molecular Structures to have Physical Properties for Specific Applications.**

### Polymers Can Degrade

Every time a polymer is heated, sheared, or stressed its original molecular structure can change. Chemical stabilizers can stop or minimize these changes.

**Residual Stabilization can be Measured by Oxidation Induction Time**

### Resistance to Change

Oxidation Induction Time is a good measurement of how much active stabilizer remains in a polymer. Therefore OIT is good indicator of the polymers resistance to melt shift as well as its long term in service stability.

**Stable Polymers Process Consistently**

### Minimize Production Rejects

Consistent, in specification production requires polymer properties to remain in a narrow band of flow characteristics. Well stabilized polymers retain their flow properties.

## In Polymer Processing and Recycling:



### Melt Index Shift

Melt index is a gross measurement of a polymers molecular structure. Any change in this measurement indicates a significant change to the polymers structure and properties.

### Resistance To Future Molecular Change

OIT is a good indicator of the polymers resistance to future oxidative degradation and therefore the stability of its rheological properties.

### Unstabilized Recycled Polymer Limits Percentage Use With Prime Polymer

Recycled polymer that has minimal stabilization consumes stabilizers in the prime resin it is blended with, thus limiting its percentage use.

### Polymer Protection

Stabilizers and other additives preserve a polymers structure by inhibiting the oxidative process or acting as sacrificial oxidation targets.

### Long Term Stability

OIT is also a key indicator of polymer parts long term stability. Residual stabilization prevents polymer breakdown in the solid state.

### Finished Goods Stability

A polymer part with little or no residual stabilization can degrade in the solid state, affecting the physical properties of the part.

# Polymer Additives Enhance Product Performance

Baerlocher's Special Additives Division offers services in form-giving and the development of customer-specific additive blends. These products and services are used in sophisticated polymer applications for both virgin and recycled polymers.





## we add character to plastics

The Baerlocher Group of Companies is one of the world's leading suppliers of additives for the plastics industry. Baerlocher has extensive technology and market know-how drawn from more than 190 years of company history.

Additives play a crucial role in determining polymer processing properties as well as final product quality and character. Baerlocher offers a broad range of additives for polymers, including products for the polymer recycling industries.

By developing and supplying innovative additives, Baerlocher enables the plastics industry to manufacture high-quality and sustainable polymer products.

[www.baerlocher.com](http://www.baerlocher.com)

## Baeropol® “One-Pack” Custom Formulated Additive Blends for Polymer Stabilization

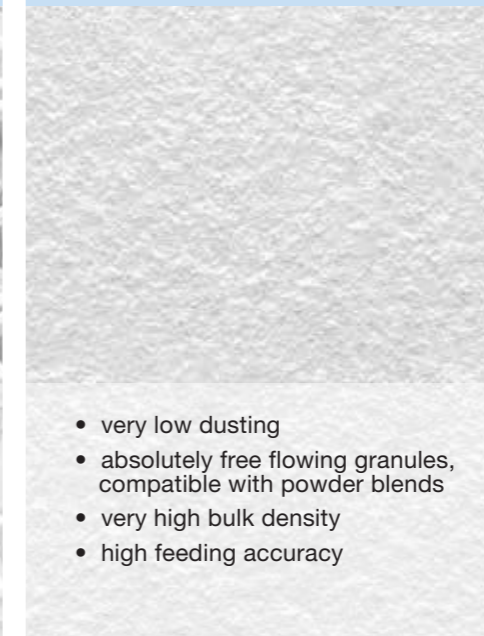
Marketed under the Baeropol® trade name, Baerlocher produces a wide variety of concentrated polymer additive blends. Unlike polymer masterbatch products that can contain as little as 3% active ingredients, Baeropol® “One-Pack” products are concentrated additive blends containing up to 100% active ingredients. These “One-Pack” additive blends are available in several convenient product forms that are easy to handle and low dusting.

### R Granules (Rods)



- free flowing
- robust handling characteristics
- high feeding accuracy
- good dispersability
- suitable to be stored in silo
- low dust

### SP Sprayed Granules



- very low dusting
- absolutely free flowing granules, compatible with powder blends
- very high bulk density
- high feeding accuracy

### TX Pastilles



- absolutely dust-free
- suitable to stored in silo
- free flowing
- durable, high abrasion resistance
- improved industrial hygiene

Baeropol® “One-Pack” products are used globally by polymer producers, polymer recyclers, compounders and polymer converters to protect their polymer products from degradation.

Baeropol® custom formulated blends can contain a variety of additives to protect polymer properties and enhance the polymer processing characteristics for specific end use applications.

The polymer recycler can specify the additives used in a Baeropol® blend, or Baerlocher's team of experts can design a customized additive blend to suit specific performance requirements or address specific problems.

The proper additives can improve recycled polymer stability to levels equal to or surpassing prime resin levels. This will increase processing efficiency and prevent processing difficulties caused by inconsistent, unstable polymers.

## Baeropol® T-Blend, Polymer Stabilizers

Preformulated, 100% Active, Stabilizer Blends for the Polymer Recycling and Converting Industries.



### Introducing New Baeropol® T-Blends

- Improved Polymer Melt Stability
- Consistent Resin Processing
- Long Term Part Stability
- Color Improved Natural Parts

Baeropol® T-Blends are a product family of blended synergistic polymer stabilizers preformulated to provide superior stabilization for most polymer applications.

Baeropol® T-Blends can give recycled polymers and prime resin compounds improved melt stability and enhanced final product performance in the form of increased part life.

For parts made from unpigmented polymers or for recycled resins with no pigmentation T-Blends can minimize the yellowing of these products.

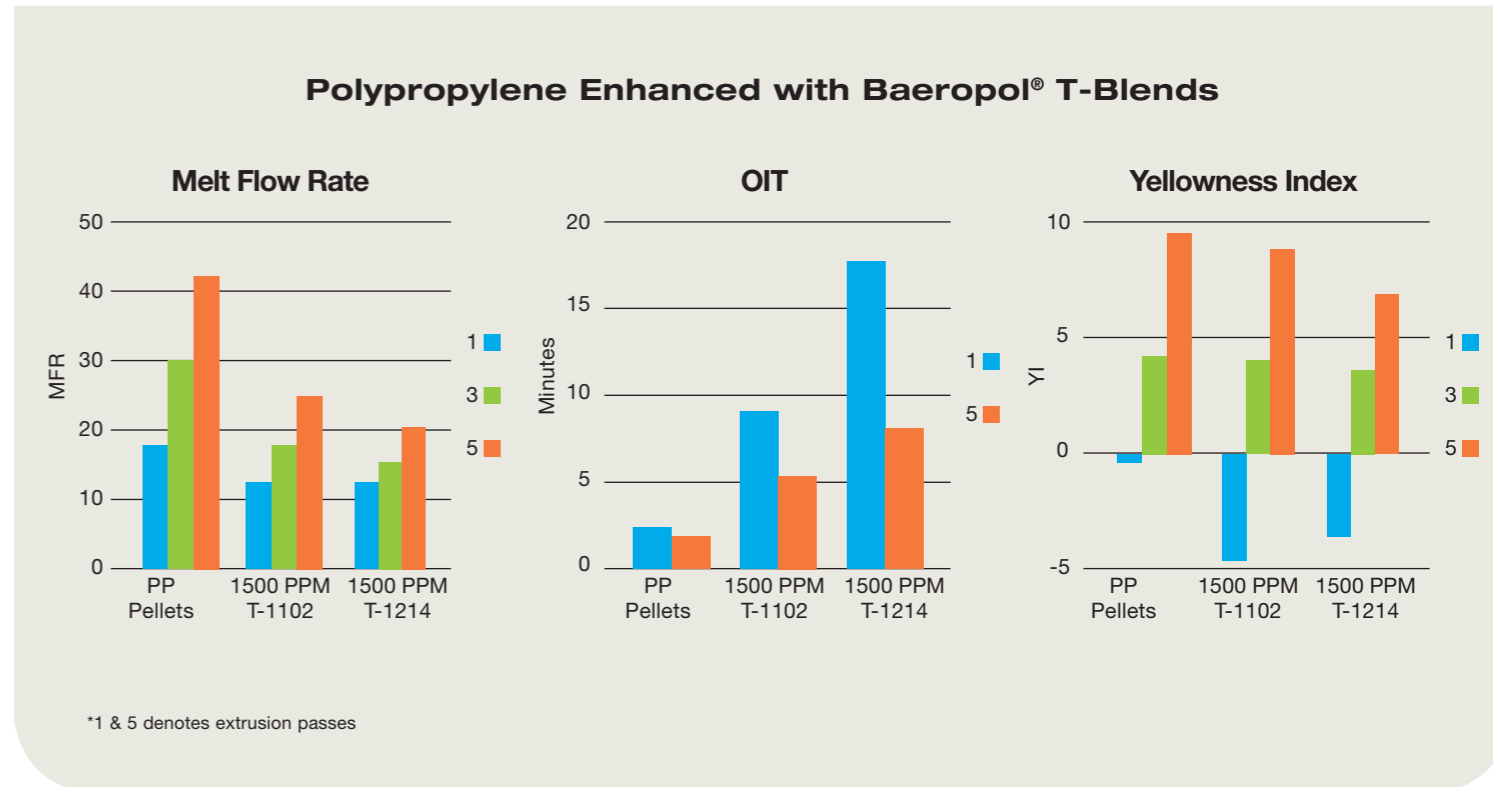
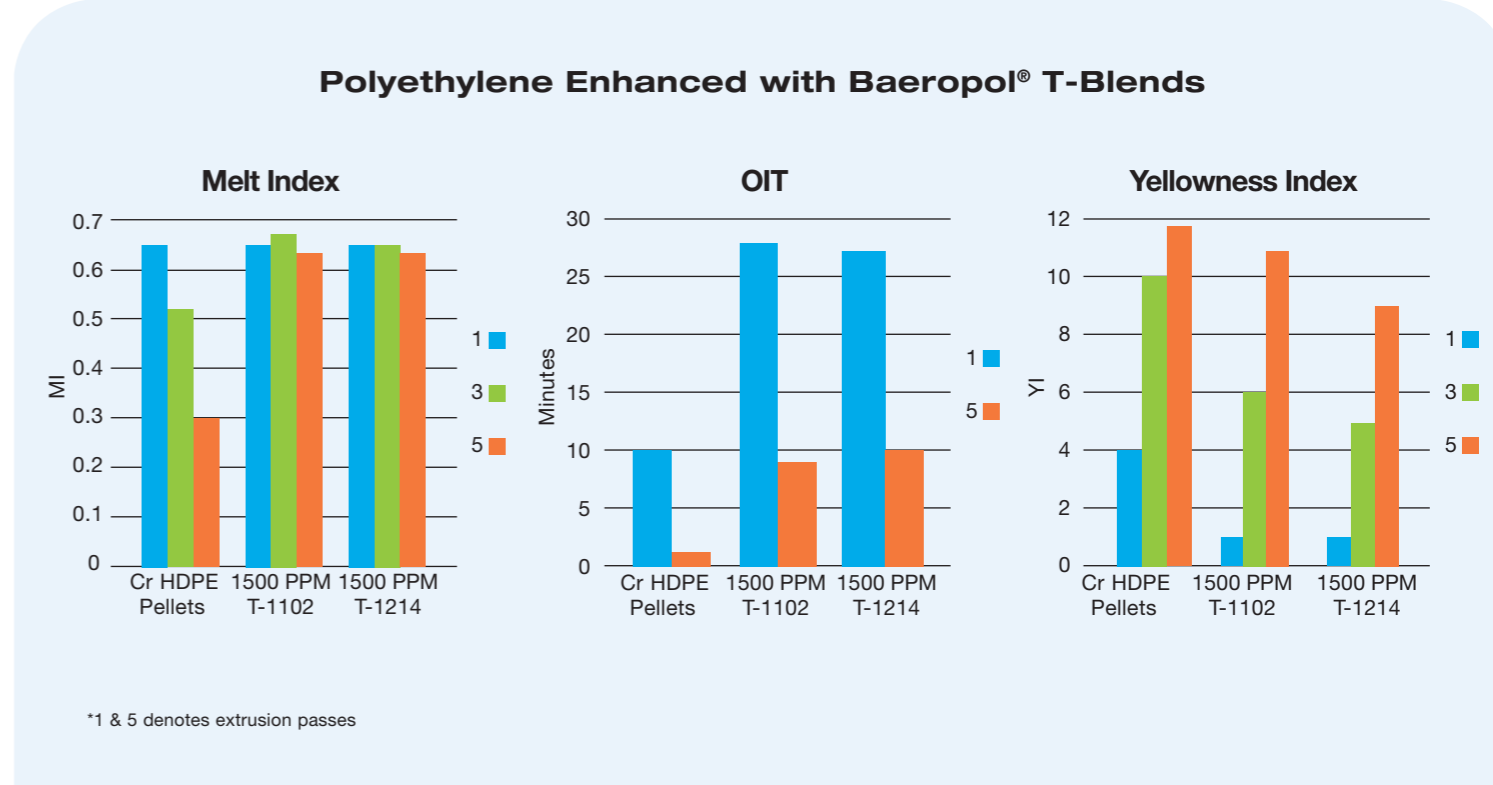
Baeropol® T-Blends are dry compressed forms that are dust free and are easily added into typical polymer processing equipment.

### T-Blend Stabilizer Grades

**Baeropol® T-Blends are formulated for effective stabilization of virgin and recycled polymers.**

- Baeropol® T-Blend 1102 – General Purpose stabilizer blend for HDPE and PP
- Baeropol® T-Blend 1214 – Boosted stabilizer blend for higher temperature process HDPE and PP
- Baeropol® T-Blend 6102 – Stabilizer for film applications of LLDPE and HDPE

## Baeropol® T-Blend Stabilizers Can Improve Polymer Stability Beyond the Level of Prime Virgin Polymers



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