SynPlast™ and reFlex™ plasticizers offer high-performance solutions for PVC formulations that require:

- Resistance to UV degradation
- Low-temperature utility
- Low volatility
- Durability in harsh environments

reFlex™ bio-based plasticizer is certified by the USDA BioPreferred program to be 94% bio-based. This non-phthalate plasticizer can enable you to:

- Meet sustainability goals
- Comply with California Prop 65, the Consumer Product Safety Initiative Act of 2008 (CPSIA) and other phthalate-restrictive regulations
- Produce non-phthalate products without compromising performance on larger-scale equipment.

Values reported as “typical” or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications.

Processing conditions can cause material properties to shift from the values stated in the information.

PolyOne makes no warranties or guarantees respecting suitability of either PolyOne’s products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product.

PolyOne makes no warranties, express or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

**NO SURPRISES PLEDGE**

At PolyOne, we are committed to helping you grow your business with safe and environmentally sound solutions. This commitment is exemplified by our No Surprises Pledge™ which we make to all customers and markets, across the globe.

- You can be confident that, in manufacturing our materials, we use sustainable practices to protect long-term product viability and sound environmental stewardship.
- You can expect that the materials we provide meet the legal and regulatory compliance standards.
- You can trust that PolyOne materials meet the rigorous quality and safety management standards required across the globe.
- You can be certain that PolyOne meets or exceeds the material safety data reporting requirements of your country or region.
- When you choose PolyOne, you can be confident our products will help you meet or exceed today’s stringent compliance standards.

SynPlast™ and reFlex™ plasticizers are produced within strict manufacturing specifications to comply with quality standards across various industries and end-use applications.
ACHIEVING EFFICIENCY

When formulating a vinyl product that is efficient from both a cost and performance perspective, selecting the best-suited plasticizer for your product’s intended application is important. Using a less than optimal plasticizer—especially for demanding applications—can create the need for higher levels of expensive additives to ensure the required performance characteristics are achieved. And timing is everything. If you don’t get it right during formulation development, you could end up with an unnecessarily high product cost, or worse, a product that falls short of the desired durability or application performance. Whether you need UV stability, low-temperature utility, or a bio-based alternative, PolyOne can help.

YOUR SUCCESS WITH OUR SOLUTIONS

The technical experts at PolyOne understand the subtle differences between plasticizer chemistries because we not only produce them, we also use them in our own flexible vinyl formulations. We can help you match your application need to a plasticizer that will achieve your goals concerning cost, performance and efficiency. Need something that is not in our current product portfolio? Our team can work with you to develop solutions to satisfy your unique requirements. Small or large volumes? We have you covered for either, as a result of our manufacturing flexibility and agility, as well as our desire to develop outsourced solutions for you.

SYNPLAST® CHEMISTRY

ADIPATES
- Highly solvating non-phthalate solution
- Provide excellent low-temperature performance
- Increasing molecular weights available to mitigate volatility issues
- GMP produced with Good Manufacturing Practices (GMP) to ensure high quality for medical and food contact applications

Applications include:
- Medical
- Food contact
- Automotive
- Wire & Cable

PHTHALATES
- Branched phthalates are well suited for general purpose applications
- Linear phthalates enable improved weathering performance and low-temperature utility
- Higher molecular weight options available for low volatility performance
- 9P and 901P formulated with an alcohol that is more linear than competing alternatives

Applications include:
- Synthetic leather upholstery
- Roofing membranes and geomembranes
- Wire insulation and cable jacketing
- Embroidered sheets and films

SEBACATES
- Highly-efficient plasticizers
- Non-phthalate solutions
- Excellent low-temperature utility—easier than adipates
- Lower volatility than adipates—well suited for applications requiring high-temperature performance

Applications include:
- Automotive slush molding
- Wire insulation and cable jackets with challenging low-temperature performance requirements
- Both PVC and rubber compounds

TRIMELLITATES
- Branched and linear products available
- Low volatility—ideal for applications requiring high-temperature performance
- Linear trimellitates provide better VOC performance, greater resistance to thermal degradation and better low-temperature utility than branched trimellitates
- L9TM recently developed as an alternative to 810TM—lower cost and greater availability of supply

Applications include:
- Plenum-rated wire insulation and cable jacketing
- Automotive slush molded skins requiring low-temperature flexibility and low VOC performance

REFLEX 100
- Meet sustainability goals
- Comply with California Prop 65, the Consumer Product Safety Initiative Act of 2008 (CPSIA) and other phthalate-restrictive regulations
- Produce non-phthalate products without compromising performance
- Licensed by Battelle Memorial Institute under U.S. Pat. No. 6,797,753 and family members in Mexico, Canada and Japan

Applications include:
- Footwear
- Furniture decorative trim
- Floormats

PLASTICIZER CHEMISTRY FAMILIES