

The true non-phthalate plasticizer

- Softest, most stable & durable in test
- Safe to use day-in-day-out
- Winning looks that last longer
- Perfect for PVC coated materials & the environment
- ➡ High productivity due to plasticizing efficiency & gelation



Why Pevalen™ & PVC are a winning combination

Pevalen[™] is an innovative, versatile and true non-phthalate polyolester plasticizer chemically known as PETV (Pentaerythritol Tetravalerate). Its unique profile and properties mean you never have to compromise between high performance and the environment. When you add Pevalen[™] to PVC you get a triple winner. You win on performance, processing, and sustainability.

Uncompromising performance

In particular, Pevalen™ exhibits exceptional qualities in UV resistance, softness, low volatility, anti-fogging, and fire & smoke resistance compared to both leading phthalate and non-phthalate plasticizers. The combination of low volatility and high plasticizing efficiency means you can produce softer, more stable and more durable PVC, helping to increase product value. This makes Pevalen the preferred choice for close contact PVC applications, such as coated textiles and automotive interiors.

20% less plasticizer for productive processing

With Pevalen™, you use up to 20% less plasticizer, and its faster absorption and gelation ensures high volume manufacturing productivity with less energy used. Pevalen™ has lower viscosity and blends more easily and faster with PVC compared to other plasticizers. This reduces processing time, helping you to increase the capacity of your existing production line and minimize wastage.



Safe and sustainable with 40% smaller footprint

Pevalen™ is an important sustainable solution for PVC helping you to reduce your carbon footprint by up to 40%. No VOC's are required, and Pevalen™ is partly produced from renewable resources. The extra durability it provides extends the life of PVC products, and its non-phthalate profile guarantees a lifetime of safe usage, which is of high value in close-to-consumer applications.



Setting higher performance standards in coated materials

Pevalen™ is ideally suited to coated materials and textiles. Being an authentic non-phthalate plasticizer means there are no safety issues related to coated PVC materials. It also offers the lowest volatility with vinyl plastisols, compared to the other leading non-phthalate plasticizers, so products retain their form and stability better.



Top in permanence and performance

The permanence and performance factors that Pevalen™ excels at are softness, UV resistance, extended useful life, and anti-fogging due to its very low volatility, which can be particularly important in automotive interiors, dashboards and seating. Pevalen™ remains stable at elevated temperatures to prevent fogging, added to which its low volatility prevents coated materials from cracking, and shrinking over time. This ensures the quality of the coated material and upholstery's useful life is extended. Pevalen™ also exhibits excellent flame and smoke retardant properties, which is a key consideration in many coated material applications.

Looking and feeling like a winner

In UV and aging resistance Pevalen[™] has set new performance standards that no other non-phthalate or phthalate plasticizer can achieve. Visual appearance and retaining it over time is a core selection criterion in many coated material and textile applications for indoors and outdoors use, such as seating in arenas, and parks as well as cars.

Finally, Pevalen's unique combination of unbeatable softness with excellent durability lends itself to many coated material applications. In fact, in tests, Pevalen $^{\text{\tiny TM}}$ is more than 10% softer than the other leading non-phthalate plasticizers.

Getting more mileage out of your PVC

Pevalen™ allows you to drive your PVC processing and manufacturing faster with less plasticizer; in fact as much as 20% less in your formulations without losing any of the performance. You get more mileage out of your PVC with Pevalen™ inside.

Increasing processing speed and productivity

PVC loves Pevalen™. Its absorption time in S-PVC is considerably faster than other general-purpose plasticizers. In fact against the leading plasticizers branded as non-phthalates – DINCH® it is 50% faster and DOTP about 25% faster. Pevalen™ is also faster to gel with PVC than other plasticizers, which enables high volume manufacturing with less energy consumption. The reduction in processing time helps you to increase the capacity of your existing production line while maintaining a robust manufacturing process.

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Geared up for an efficient, cost-effective and sustainable future

Pevalen[™] high plasticizing efficiency means your formulation requires up to 20% less plasticizer. This directly reduces your costs, reduces the overall weight of produced products and offers a more sustainable solution by consuming fewer resources – plasticizer and energy. Also, Pevalen[™] is made from partly renewable material and can reduce your carbon footprint by 40% more than comparable plasticizers, making it a great environmental choice too.

A winning team - Perstorp & Pevalen™

Perstorp is an innovative and reliable plasticizer partner with a strong commitment to supporting the development of a sustainable PVC industry. Our customers have fast access to in-depth technical support at all times as well as a range of high performance, sustainable and cost-effective plasticizers including Emoltene™ 100 (DPHP) for tough outdoor applications. With Perstorp and Pevalen™ on your team, we will help you to achieve a winning PVC performance.

Find out more at: www.perstorp.com/Pevalen



Gold Medalist in non-phthalate plasticizers



Whatever you are looking for in a plasticizer for close-to-consumer applications look no further. PevalenTM is a true and safe non-phthalate plasticizer with uncompromising performance properties that you can rely upon. In fact, for coated materials and textiles it has the OEKO-TEX® Eco Passport to confirm its gold medal performance in safety and sustainability. When it comes to softness, stability, and durability, PevalenTM takes PVC applications to the top of the podium. PevalenTM is also world class in helping to maintain the looks and extend the lifetime of PVC products.

% no phthalates

softer than other leading non-phthalate plasticizers



There are many application areas in coated garments and materials, which include:

- Artificial leather clothing & footwear
- Artificial leather luggage and bags
- Automotive seats
- Convertible auto roofs
- Mud flaps
- Furniture
- Rain jackets
- Work gloves
- Wellington boots
- PVC umbrellas
- Wedding marquees
- Swimming hats and goggle parts
- Gymnastic mats and high jump mats

20%

Up to 20% less plasticizer needed

40%



reduction of carbon footprint



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A global leader in high growth niches

The Perstorp Group, a trusted world industrial leader, places focused and marketdriven innovation at your fingertips. Our culture of performance builds on 135 years of experience and represents a complete chain of solutions in organic chemistry, process technology and application development.

As a global leader in high growth niches, such as powder and UV cured coatings, plasticizers, synthetic lubricants and grain preservation, we are committed to developing products providing essential properties to enhance the quality, performance, and profitability of your products and processes. This is how we enable you to meet market demands for safer, lighter, more durable, economically effective and sustainable end-products for the automotive, construction, agriculture, packaging, transportation and consumer goods.

Our unique integrated production platforms are backed by reliable business practices and a global commitment to responsiveness and flexibility. Consistent high quality, capacity and delivery security are ensured through strategic production plants in Asia, Europe and North America, as well as sales offices in all major markets. Likewise, we combine product and application assistance with the very best in technical support.

As we look to the future, we strive for the development of smarter and safer products and sustainable processes that reduce environmental impact and create real value in end-products. This principle of proactive innovation and responsibility applies not only to our own business but also to our work with yours. In fulfilling it, we partner with you to create a winning formula that benefits your business – as well as the people it serves.

Discover your winning formula at www.perstorp.com

