SHERWIN-WILLIAMS.

PACKAGING • Barrier Additives for Plastic Bottles

valOR[®] for Beer, Juice, & Tea

Sherwin-Williams, a leader in packaging solutions for over 150 years, offers customized barrier additives to protect your juices and teas packaged in PET bottles. **valOR**® barrier is easily added to your bottle using standard injection and blow molding processes. The result is a visually appealing bottle with remarkable clarity.

Your product will maintain it's fresh appearance on the store shelf. Use-by dates can be extended without loss of color, taste and vitamin levels. With **valOR** barrier, you will achieve material cost reductions and savings in transportation costs by using less PET, while maintaining or improving the freshness of your beverage product.

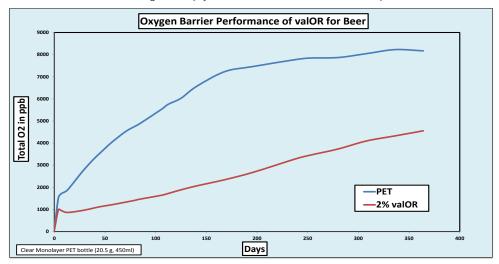
How Does it Work?

valOR barrier additives react with and block oxygen from entering your bottle. If the beer, juice, or tea is sensitive to oxygen, measures to reduce the ingress of oxygen will improve the taste, color and vitamin retention of the product.





valOR provides extended shelf life for a wide range of products, from juices and teas to beer and condiments. Product grade and dosing are selected to maintain product freshness for the desired shelf life as well as allow storage of empty bottles with minimal loss of barrier performance.



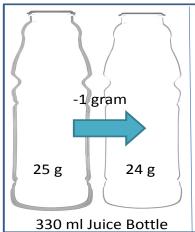


- Fresher tasting product throughout shelf life
- Retain original color of your beverage or food
- Cost savings from bottle light weighting
- Extend "use-by" date
- Maintain vitamin levels

valOR® for Beer, Juice, & Tea

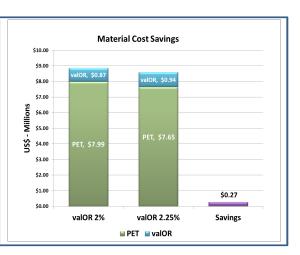
Light-weighting Cost Reductions with valOR Barrier

Many beverage packages are being light-weighted to reduce the amount and cost of PET. This can result in a thinner side wall that allows more oxygen to enter the package. By incorporating **valOR** additive, barrier performance is maintained and an overall material cost saving is achieved.



Operating Cost Savings

- Reduced carbon footprint of container
- Reduced carton footprint for transport
- Shorter mold cycle times



Regulatory / Recycling

Sherwin-Williams' comprehensive regulatory expertise, uniquely equips us to help you navigate today's increasingly global and complex food safety and environmental regulations. Sherwin-Williams has regulatory experts throughout North America, Asia and Europe, and each is supported by the industry's largest international network of packaging research and laboratory facilities.

valOR is recyclable in fiber and strapping and has limited bottle to bottle recycling ability.

Please contact your Sherwin-Williams representative, for detailed regulatory and recycling information.

Security of Supply

Our customers are supported around the world by Sherwin-Williams' renowned technical expertise. We'll work side-by-side with you, at your facilities, to refine or perfect your application or to improve the performance and profitability of your manufacturing service. Whatever the challenge, we'll respond with a personalized, cost-effective and efficient solution every time. Our technical service includes a proven track record of in-plant commissioning, conducting line audits, optimization of new line setup and technical trial support.

Located in every region of the world, Sherwin-Williams supports customers with a consistent, uninterrupted supply of product. Sherwin-Williams' record of consistent product quality and supply allows our customers to concentrate on what matters most, the satisfaction of their customers.



Why Sherwin-Williams

As the leading global supplier of packaging coatings, Sherwin-Williams helps develop, protect and advance the packaging design and heritage of many of the world's best-known brands. Whether your goal is to develop a new generation of packaging designs, meet ever-changing regulatory challenges or to enhance the sustainability of a packaging product, you can count on Sherwin-Williams to deliver the solutions you need.

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No. 5 Bld., Shibei Industry Park No. 168 Jiang Chang San Road Zha Bei District, Shanghai 200436, PR China +86 (0)21 6056 0999 For more information about Barrier Additives for Plastics and Sherwin-Williams' full line of world-class packaging coating solutions, call your local Sherwin-Williams representative or visit **packaging.sherwin.com**.

The information in this document is intended to describe general characteristics of the listed products. It is provided in good faith and we believe it is accurate as of the date of publication, but we make no warranties as to its accuracy. Contact your Sherwin-Williams representative for further information and updates about these and other products.