

USING CARBON DIOXIDE REGULATORS TO EXTEND THE SHELF LIFE OF PLASTIC PACKAGING

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ABSTRACT

10 A method for replenishing carbon dioxide gas in a carbonated beverage container
where a carbon dioxide regulator releases carbon dioxide at a rate approximately
equal to the rate of carbon dioxide loss from said container. Also disclosed is
packaging system for maintaining a consistent pressure of a carbonated beverage
comprising a closure, a plastic container, and a carbon dioxide regulator. Also
disclosed is a method for making a packaging system for maintaining a consistent
pressure in a carbonated beverage comprising overmolding a preform around an
15 assembly for a carbon dioxide regulator, or blending a carbon dioxide regulator into
the plastic material used to form the body of a container for said carbonated
beverage. Also disclosed is carbon dioxide regulator composition for replenishing
carbon dioxide gas in a carbonated beverage container comprising polymeric
carbonates, organic carbonates, or materials that absorb and subsequently release
20 carbon dioxide.

(No Suitable Figure)