

OTR Equipment



Oxygen Transmission Rate Testing

LaserSharp FlexPak Services conducts Oxygen Transmission Rate (OTR) testing to ensure that perishable oxygen-sensitive products, like meat and produce, maintain freshness and an extended shelf life. Laser perforating and scoring methods proven at LaserSharp FlexPak Services create breathable packages to ensure the precise OTR is delivered to the specific product.

The OTR is a calculated measurement of the amount of oxygen that passes through a substrate at a steady rate, over a given period of time. The goal of perforated breathable packaging is to achieve a balance between the declining oxygen levels and increasing carbon dioxide levels, as well as eliminate moisture or condensation inside the package.

LaserSharp FlexPak Services will help you find the right pattern and size to achieve the exact OTR for your product. From developing the perforating sizes and patterns, to producing test samples and full-scale commercial production runs of your breathable packaging application, LaserSharp FlexPak Services is your one-stop service solution.

Oxygen Transmission Rates

cc/m²/24 hours (cc/100in²/24 hours)

Typical Products with OTR Requirements

Very Low	<300cc/m ² /day Examples: apples, celery sticks, green peppers, baby carrots
Low	300 - 500cc/m ² /day Examples: carrots, cabbage, kale, berries
Middle	500cc/m ² /day Examples: carrot coins, cauliflower, peas, radishes, potatoes
High	1,000 - 2,000cc/m ² /day Examples: peas in the pod, asparagus, broccoli, corn, mushrooms
Very High	+10,000cc/m ² /day Examples: fish, red meat, cut pineapple



For more information about our contract services contact us at:

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