

# SHELFPLUS® O<sub>2</sub>

Oxygen Absorber – Active Packaging



**SHELFPLUS® O<sub>2</sub> absorbs oxygen from the headspace of a package and it reduces the volume of oxygen that can penetrate a package from outside. The masterbatch can be integrated easily into your production process and can be used with standard materials (PE, PP, PA and EVA) to create an active multilayer barrier both in rigid and flexible film applications.**

SHELFPLUS® O<sub>2</sub> is an iron based oxygen scavenger masterbatch which has been used in rigid packaging applications for more than 10 years. Recent developments have led to an improved performance and effectiveness of the additive thanks to a lower particle size and the addition of innovative patented additives.

These innovations have achieved a faster reaction speed of the oxygen absorbing properties in the process and has allowed the integration of SHELFPLUS® O<sub>2</sub> into flexible packaging formats such as lidding, stand up pouch and BIB.

SHELFPLUS® O<sub>2</sub> is used to extend shelf life of humid products that are sensitive to oxidation. In food products oxidation causes degradation of organoleptic properties and taste profiles, whilst in cosmetic products active ingredients such as vitamins can lose their nutritional properties and potency.

Recent studies carried out by an independent laboratory and a University have shown great improvements in package performance when SHELFPLUS® O<sub>2</sub> is incorporated. For example; it was demonstrated that using SHELFPLUS® O<sub>2</sub> in flexible film applications can demonstrably compensate for loss of barrier from 10 micron pinholes often found in lidding films or pouches. Another study showed that using SHELFPLUS® O<sub>2</sub> can significantly reduce the amount or need for often costly preservatives in certain products e. g. sulphites in wine.

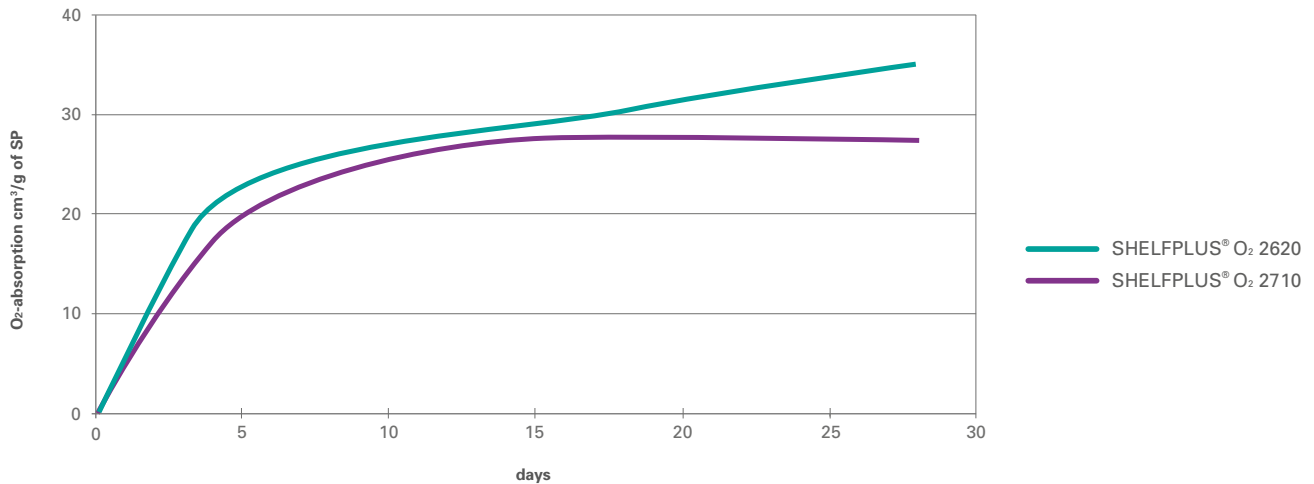
## **SHELFPLUS® O<sub>2</sub>: Key facts**

- Iron based O<sub>2</sub>-absorber
- Activation by humidity
- Masterbatch
- Food approved FDA/EU/Active packaging
- Ideal for multilayer packaging
- Used in combination with passive barrier materials

**SHELFPLUS® O<sub>2</sub>**

Carrier	Product	Use	Density	Remarks
PE	SHELFPLUS® O <sub>2</sub> 2620	PE, PP, EVA	1.42	Activation by humidity
PP	SHELFPLUS® O <sub>2</sub> 2710	PP	1.39	Activation with T°C > 95°C and humidity

## O<sub>2</sub>-absorption of Shelfplus grades



The graph shows the oxygen absorption of our standard grades, tested at 100% relative humidity, room temperature and a starting O<sub>2</sub> concentration of 21%.

## SHELFPLUS® O<sub>2</sub>: Applications at a glance

- Rigid multilayer food trays
- Co-injection IML Barrier
- Bag-In-Box
- Lidding films
- Co-extruded tubes
- Co-extruded blowmolded bottles
- Stand-up pouches

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