

FreshMagic®/ZEO®塑膠是一種環保綠色產品，可透過 ZEO®粉部分替換以減少塑膠粒的使用。ZEO®粉是天然的石粉，可與任何塑膠材料如 PP 或 PE 或 PET 混合，提供額外的功能性，如除味(如甲醛)，或防霉。ZEO®粉已通過 SGS 檢驗認證，是一種安全無毒的材料。當混煉光可降解助劑時，塑料袋或膜可以達到 100%光可降解之環保功效，符合各種國際環保降解要求，如 ISO 或 ASTM 6954-04 等規定。

FreshMagic®/ZEO® plastic refer to a green product to replace and reduce plastic particles by ZEO® powder. ZEO® powder is made of natural stone and can be mixed with any plastic materials like PP or PE or PET to provide extra functions like anti-odors (like formaldehyde) or anti-molding. ZEO® powder is certified and tested by SGS that it's safe and green by all kinds of tests. When mixed with proper Oxo-biodegradable additives as required, the plastic bags or films can achieve 100% oxo-biodegradable to meet with all kinds of international requirements like ISO or ASTM standards.

**Q1: 塑料成份是什麼?環保嗎? What's the content of ZEO®/FreshMagic® bag or film?**

A1: ZEO®/FreshMagic®塑膠是由天然的多孔性石粉混合塑膠原料添加 1wt%至 3wt%所製成。天然的多孔性石粉的組成天然物質，請見 SGS 成分分析報告。

ZEO® /FreshMagic® plastic bag is made of PE/PP mixed with 1wt% to 3wt% natural porous stone powder and plastic materials. The natural stone is composed of natural ingredients. Please refer to the SGS composition test report.

**Q2: 塑料可分解嗎?多久的時間可被土壤分解掉? Is the bag biodegradable?**

A2: 藉由可降解塑膠粒與 ZEO®粉混合製成的 ZEO®塑膠是為可分解的環保產品。然後，若是 ZEO®粉是與普通塑膠粒混合，則製成的塑膠並不易被分解。

ZEO® plastic can be made of bio-degradable plastic materials mixed with ZEO® powder to make it become a green product. If ZEO® powder is mixed with normal plastics, then ZEO® plastic is not biodegradable.

**Q3: 對地球/土地是否為有害/毒物質? Any toxic or harmful material?**

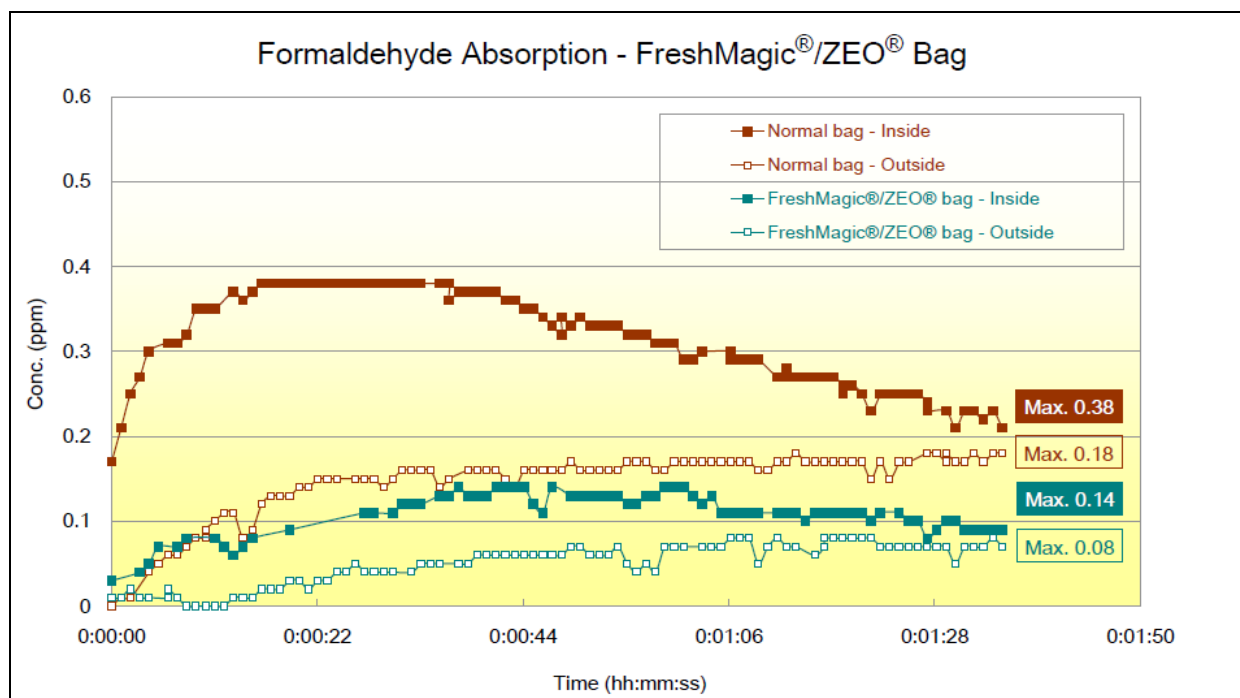
A3: ZEO®塑膠不含有害/毒物質，但建議採用光可降解機制來有效分解、降解所用的塑膠原料，對地球的環境負擔最少。請見附件 SGS 的無毒性檢測報告與 FDA 檢驗標準報告。

ZEO® plastic is a non-harmful and non-toxic product for the earth and soil. We highly recommend using oxo-biodegradable additives to further oxidize or biodegrade the plastic materials. Please refer to the SGS non-toxic test report and FDA standard test report.

**Q4: 如何得知 ZEO®/FreshMagic®產品具有吸附的能力?或水果保鮮能力?其原理是什麼? How to identify the absorption or de-odor or freshness preservation function come with ZEO®/FreshMagic® products?**

A4: 透過甲醛偵測器檢測袋子的吸附性。

The absorption capability of plastic bag can be tested by formaldehyde detector.



Q5: 如何得知塑料產品具有濕調氣調的能力?其原理是什麼? How to know the humidity or air maintaining function?

A5: 將袋內放置會緩慢釋放濕氣的物品，並將袋子封口，放置一段時間後，比較 ZEO®塑膠袋與一般塑膠袋的濕度特性。

The moisture or air maintaining capability of plastic bag can be tested by packing the product which would emit moisture slowly for a while to compare the effect of ZEO® bag with normal bag.

放置 7 天後 After 7 days

ZEO®塑膠袋  
ZEO® plastic bag



一般塑膠袋  
Normal plastic bag



**Q6: 效能可以持續多久?因為任何產品都有個保存期限 How long for the validity of function?**

**A6:** 當 ZEO®材料的孔洞被吸附物質填滿後，則不會再進行吸附。但可以乾燥或曝曬後重置吸附功能，並反覆使用，效果會有所酌減。

As the porous space of ZEO® powder is saturated with full of absorbed materials, the ZEO® plastic would no longer absorb. But the absorption can be reset by drying or sunlight exposure to resume partially to its original capability of absorption.

**Q7: 若曬太陽(過烤箱)可重覆再使用，那麼要多少的溫度曬多久?或是溫度不要高過攝氏幾度? For exposure in sunlight to resume usage, how long for exposure time and what' s the recommended temperature?**

**A7:** 於陽光下，環境溫度 25°C 以上，且通風的情況下，曝曬 2 天後，ZEO®塑料仍有其效用。不過根據吸附的氣體不同，處理後的效用不一，且重複使用後，吸附功能可能會有所打折。處理的溫度需低於塑膠材料的衛氏軟化溫度，如 LDPE 處理溫度建議在 80 度 C 以下。

The reused ZEO® plastic which is treated in sunny space with above 25°C environment temperature and ventilation condition for 2 days to reset the absorption function still has absorption capability. However, the effect of treatment may vary according to gas to be absorbed, and the absorption capability of reused bag would maybe be reduced. The treatment temperature should be below the Vicat softening point of plastic material, such as below 80°C for LDPE.