

Luperox[®] 聚苯乙烯引发剂

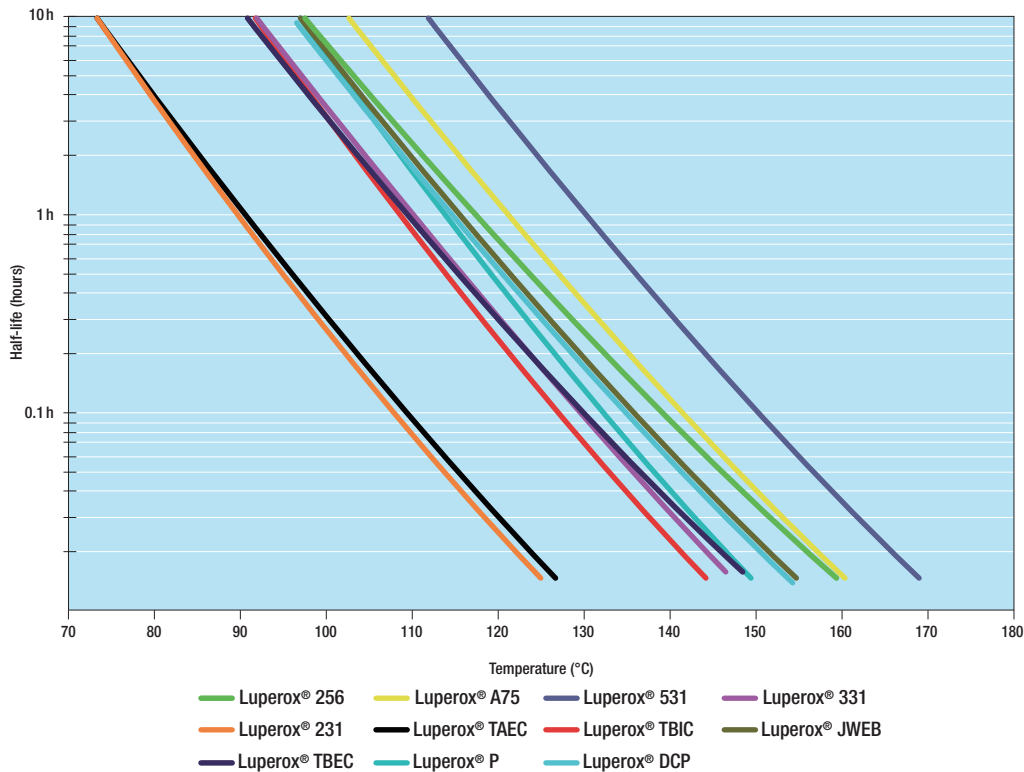
有机过氧化物的选择指南

有机过氧化物已经证明了其在LDPE/EVA工艺上的效率，并且在增加高压PE工厂总体效能起着非常重要的作用。

ARKEMA 生产一系列的引发剂并持续开发新产品以满足客户的需求，例如更高的转化率和操作中的安全标准。所有适合于LDPE应用的有机过氧化物如图1所示，在高压工艺下所需宽范围的工作温度。

根据温度曲线选择合适的过氧化物混合物，对于增加生产效率和树脂质量是非常关键的。

图 1: 半衰期 Vs 温度

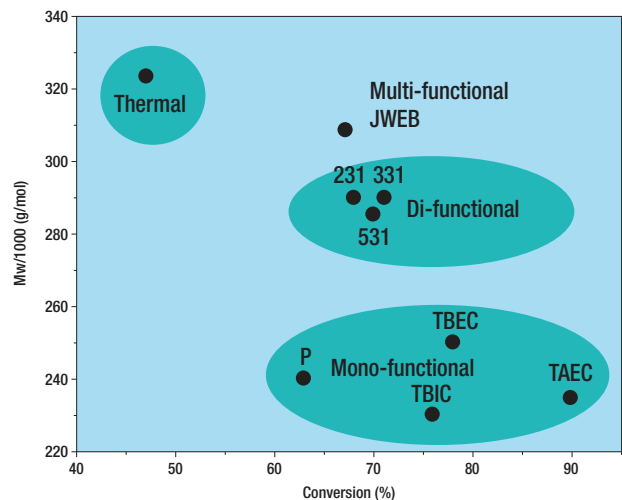


GPSS 和 HIPS 应用

对于GPSS生产,ARKEMA推荐双官能过氧化缩酮，例如Luperox[®] 531, Luperox[®] 231 或 Luperox[®] 331 这些可以增加生产率同时保持分子量(图2)。低聚物残留同时也降低。

对于HIPS生产,单过氧化碳酸酯如Luperox[®]TBIC和Luperox[®]TBEC会增加接枝率及增加橡胶相，进而增强抗冲击性能。Luperox[®]TAEC也用作最大化HIPS橡胶结节中的封闭的聚苯乙烯。

图2: 不同有机过氧化物在GPSS和HIPS应用中的转化率和分子量对比

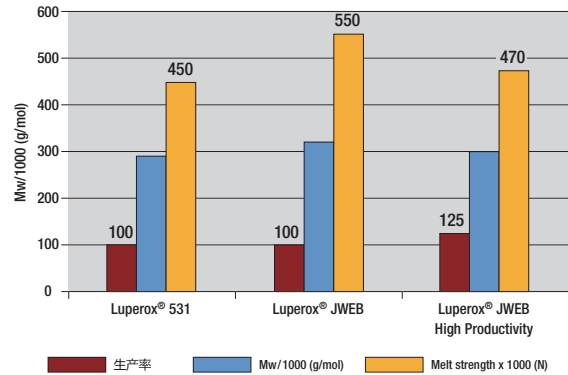


Luperox® JWEB: 如何获得高分子量

阿科玛开发出一款新型引发剂LUPEROX®JWEB，其特点就是可以使聚合物链产生枝化，从而提高了热粘弹性（熔体强度），有利于提高热成型速度。用该引发剂生产的聚苯乙烯泡沫，其强度、结构和均匀性也得到了改善。

这种食品准入的过氧化物，可以帮助聚苯乙烯生产商提高生产力及其食品包装等级的质量

图 3:使用 Luperox® JWEB 的生产率和质量改善



EPS 应用

ARKEMA 生产高质量的过氧化苯甲酰 (Luperox® A75), 可以精准控制EPS树脂的粒径分布。Luperox® P 用于在反应末端减少苯乙烯残留，Luperox® DCP 可以用作阻燃等级的增效剂。但过氧化碳酸酯如 Luperox®TAEC和Luperox® TBEC 可用作增加生产率和降低苯乙烯残留。

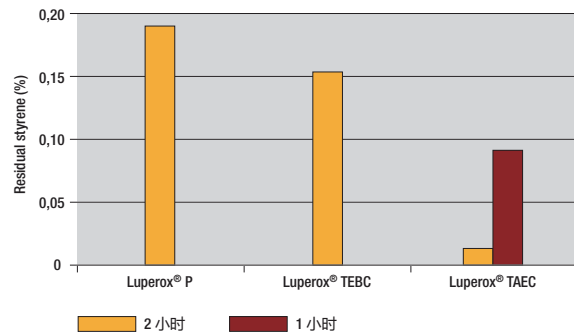
Luperox® 256: 高分子量

Luperox® 256 可以增加 EPS的分子量。

若溴化添加剂改变了分子量，Luperox®256被推荐用于生产阻燃级EPS。

聚合条件: 4 hrs 90°C - x hrs 120°C; 0.25% BPO; 700 ppm
Luperox® P équivalent

图 4 : 使用不同有机过氧化物获得残留苯乙烯含量



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