

Luperox® LDPE/EVA引发剂

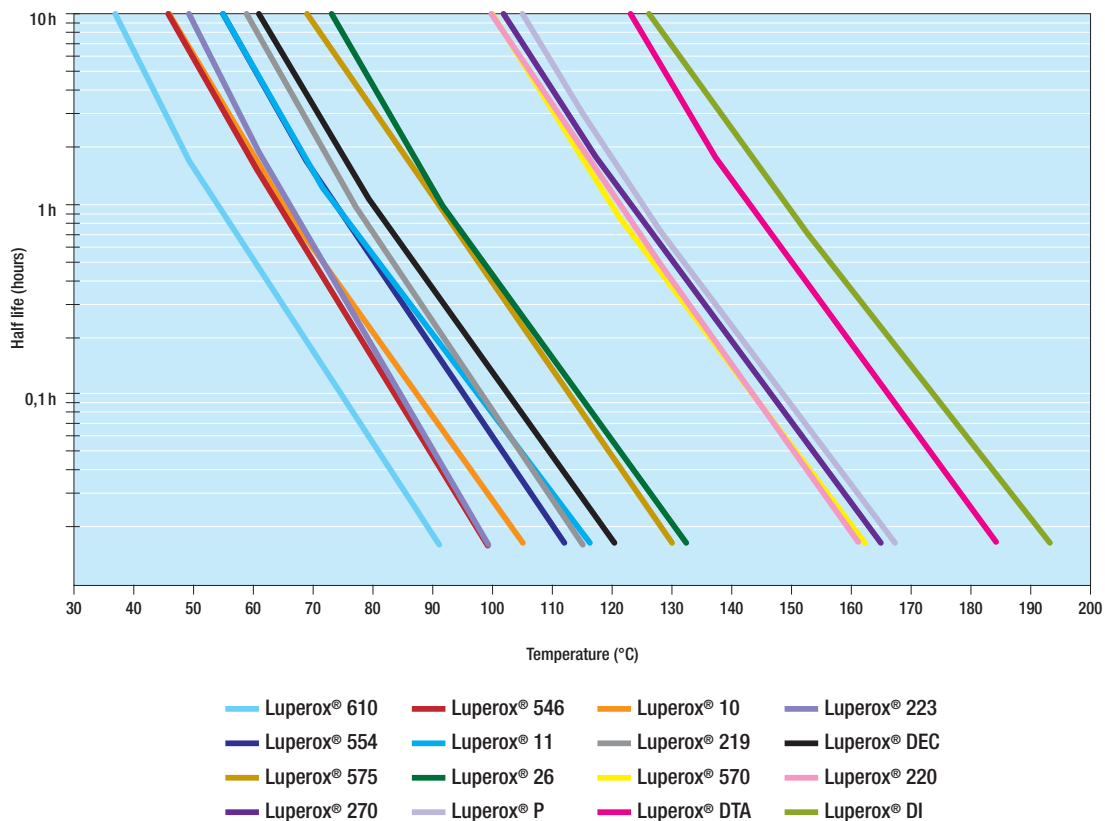
有机过氧化物的选择指南

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



叔戊基过氧化物的优势

有机过氧化物如 Luperox® 546, Luperox® 554, Luperox® 575 对于高压乙烯聚合反应工艺有不同的工作温度 (见图 2)。

比起叔丁基过氧化物，叔戊基过氧化物分解得到的自由基能量低，因而很少粘釜，合成的PE树脂的光学性能更优，有机过氧化物的单位消耗量更低。

例如用Luperox® 554M75取代Luperox® 11M75或Luperox® 219M75可能会得到较低的单位消耗量和PE树脂某些光学性能的提高。

图2: 用于LDPE的主要有机过氧化物

过氧化物	化学特性	1 min. T _{1/2} (°C)	起始温度	存储温度	单位消耗量 g/Kg PE
Luperox® 11M75	叔丁基	116	162	< -5	0.5
Luperox® 546M75	叔戊基	99	145	< -14	-
Luperox® 554M75	叔戊基	112	158	< -10	0.37
Luperox® 575	叔戊基	126	176	< 10	0.35
Luperox® 80M75	叔丁基	127	177	< 10	-
Luperox® DTA	叔戊基	184	257	< 30	0.2
Luperox® DI	叔丁基	193	268	< 30	0.25
Luperox® 219M75	二酰基过氧化物	115	162	< -5	-

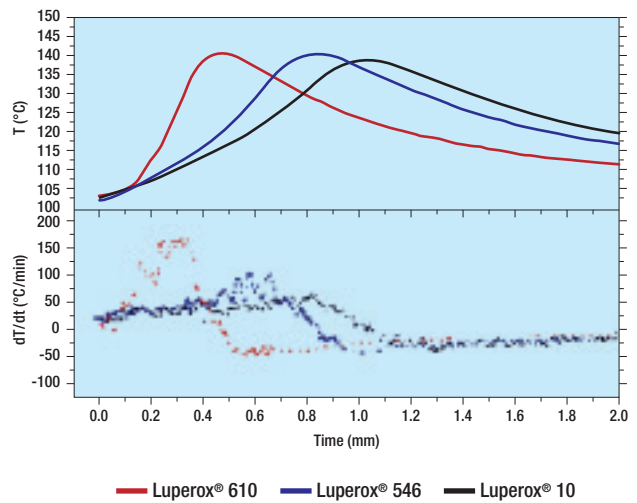
微实验装置: 优化生产力和性能的工具

为了更好地理解有机过氧化物在特高压PE工艺中的作用,阿科玛运用微实验装置来再现间歇釜、连续管和高压釜反应器。研究是根据客户的条件(压力高达3000bars,温度100-300°C)。

微实验装置是用来确定有机过氧化物混合物和生产率。这将通过温度分布与时间(图3)、转换率和单位消费量测量来实现。



图 3: 不同过氧化物在管式反应器中获得的温度分布的模拟



The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, ARKEMA expressly disclaims any and all liability as to any results obtained arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See MSDS for Health & Safety Considerations.

The information contained in this document is based on trials carried out by our Research Centres and data selected from the literature, but shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment from our part. Our formal specifications define the limit of our commitment. No liability whatsoever can be accepted by ARKEMA with regard to the handling, processing or use of the product or products concerned which must in all cases be employed in accordance with all relevant laws and/or regulations in force in the country or countries concerned.

ARKEMA
INNOVATIVE CHEMISTRY

Arkema (China) Investment Co., Ltd.-Shanghai

6/F Block 1, Life Hub@Daning
1868 Gonghexin Road
200072 Shanghai, China
Tel: (+86) 216147 6888

Arkema Pte Ltd

10 Science Park Road #01-01A
The Alpha Singapore Science
Park II Singapore 117684
Tel: +65 6419 9199
Fax: +65 6725 8053

Arkema K.K.

Fukoku Seimei Bldg. 15F
2-2-2 Uchisaiwaicho
Chiyoda-ku, Tokyo 100-0011 Japan
Tel: +81-03-5251-9597
Fax: +81-03-5251-9930

Arkema Peroxides India PVT.Ltd

1st Floor, Balmer Lawrie House
628, Anna Salai, Teynampet
Chennai - 600018 ; India
Tel: +91-44-42197504

SEKI ARKEMA Co.,Ltd.

10, Gongdandong-gil,
Chilseo-myeon, Haman-gun,
Gyeongsangnam-do, 52002, Korea
Tel: +82 55 587 8060
Fax: +82 55 587 8061