

2018埃克森美孚防水市场应用专题研讨会

Escorez™ 增粘树脂在热熔压敏型防水卷材中的应用

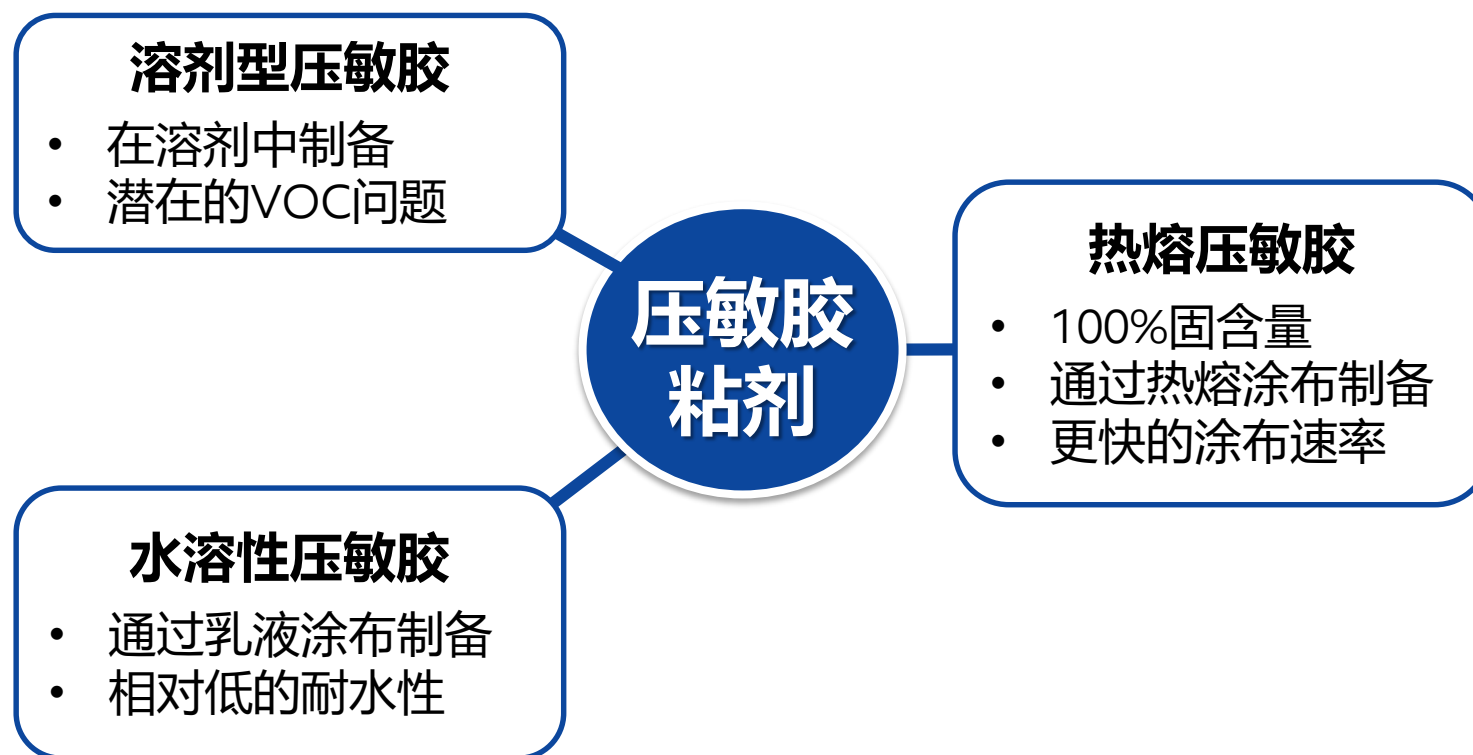
Energy lives here™

应用开发工程师 解铭时 博士
2018.10

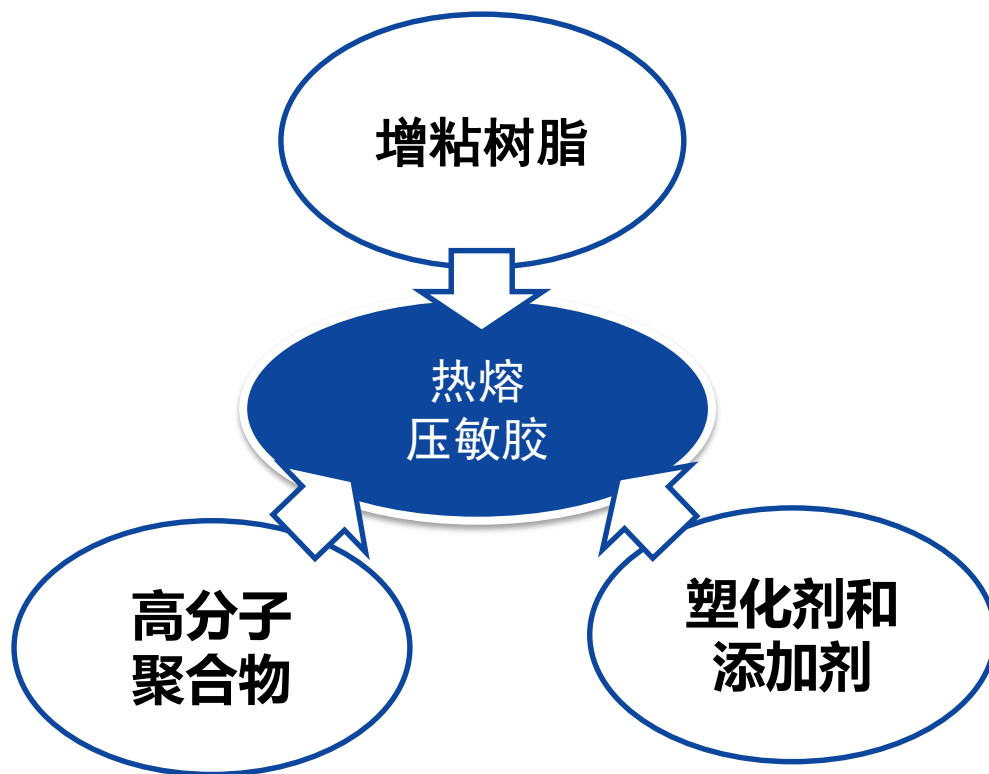
压敏胶 (PSA)

压敏胶：

具备一定粘弹性能，室温下能永久保持初粘性的一种材料。



热熔压敏胶 (HMPSA)



增粘树脂：

- 石油树脂，松香酯，萜烯树脂
- 增强初粘性和粘接性能

高分子聚合物

- SIS, SBS, SEBS等
- 提供内聚力

塑化剂和添加剂

- 油 - 增强润湿能力和柔性
- 抗氧化剂 - 在胶粘剂的加工和使用过程中保护其不被氧化

Escorez™ 增粘树脂

石油树脂的优点

较低的分子量和较窄的分子量分布

稳定的组分

更浅的颜色

粘接性能

定制化，良好的相容性

稳定的热熔胶质量和性能

更浅色的热熔胶产品

广泛应用于胶粘剂和密封剂市场

- 热熔胶
- 压敏胶
- 密封剂



胶粘剂相关产品生产基地



亚洲产能增长

Escorez™ 氢化石油树脂

全球最大的氢化石油树脂工厂

- 设计年产能9万吨
- 2017年6月装置竣工
- 与上游原料完全一体化
- 稳定的高质量产品

埃克森美孚长期投入于胶粘剂行业
新加坡的新产能会支持行业需求的增长

氢化石油树脂

- 较低的初始颜色
- 更高的热稳定性
- 低气味
- 清洁-极低催化剂残留
- （相较于碳五树脂）相同软化点，分子量更低

Escorez™ 增粘树脂 5300 系列

- 水白色脂环族烃树脂

Escorez 增粘树脂 5400 系列

- 浅色脂环族烃树脂。与5300相近，氢化程度略低

Escorez 增粘树脂 5600 系列

- 浅色芳香类改性脂环族烃树脂。与5400相近，含有芳香类组分



新加坡生产的Escorez™ 增粘树脂规格

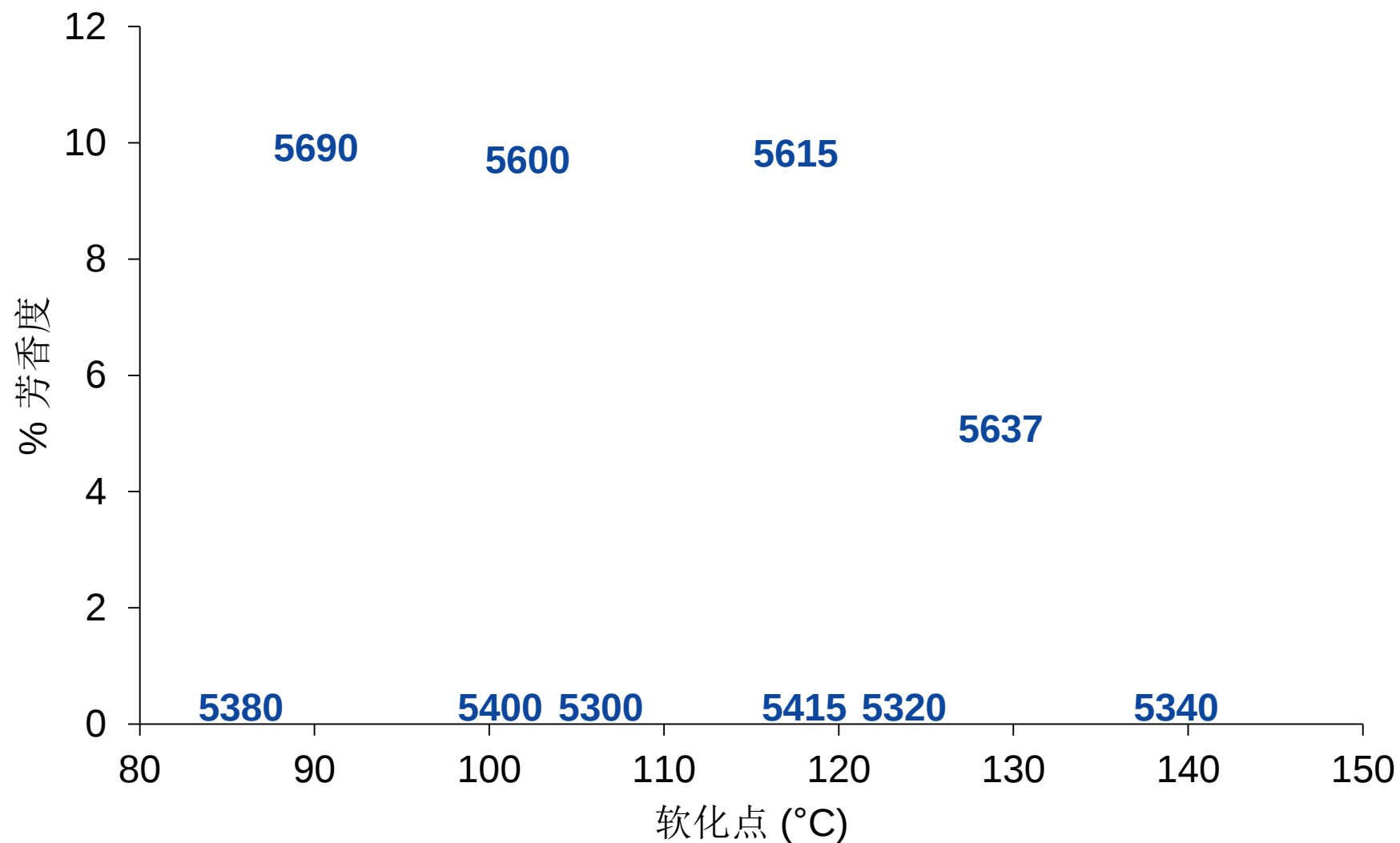
与全球销售规格一致

与现有的美国与法国工厂规格性能一致

	巴吞鲁日 美国	格拉旺雄圣母村 法国	新加坡 树脂厂
Escorez 5300	✓	✓	✓
Escorez 5320	✓	✓	✓
Escorez 5400	✓	✓	✓
Escorez 5415	✓	✓	✓
Escorez 5600	✓	✓	✓
Escorez 5615	✓	✓	✓
Escorez 5380	✓	✓	
Escorez 5690	✓	✓	
Escorez 5340	✓	✓	
Escorez 5637	✓		



Escorez™ 氢化石油树脂规格



Escorez™ 增粘树脂典型值

Table title: Escorez™ tackifiers - typical values

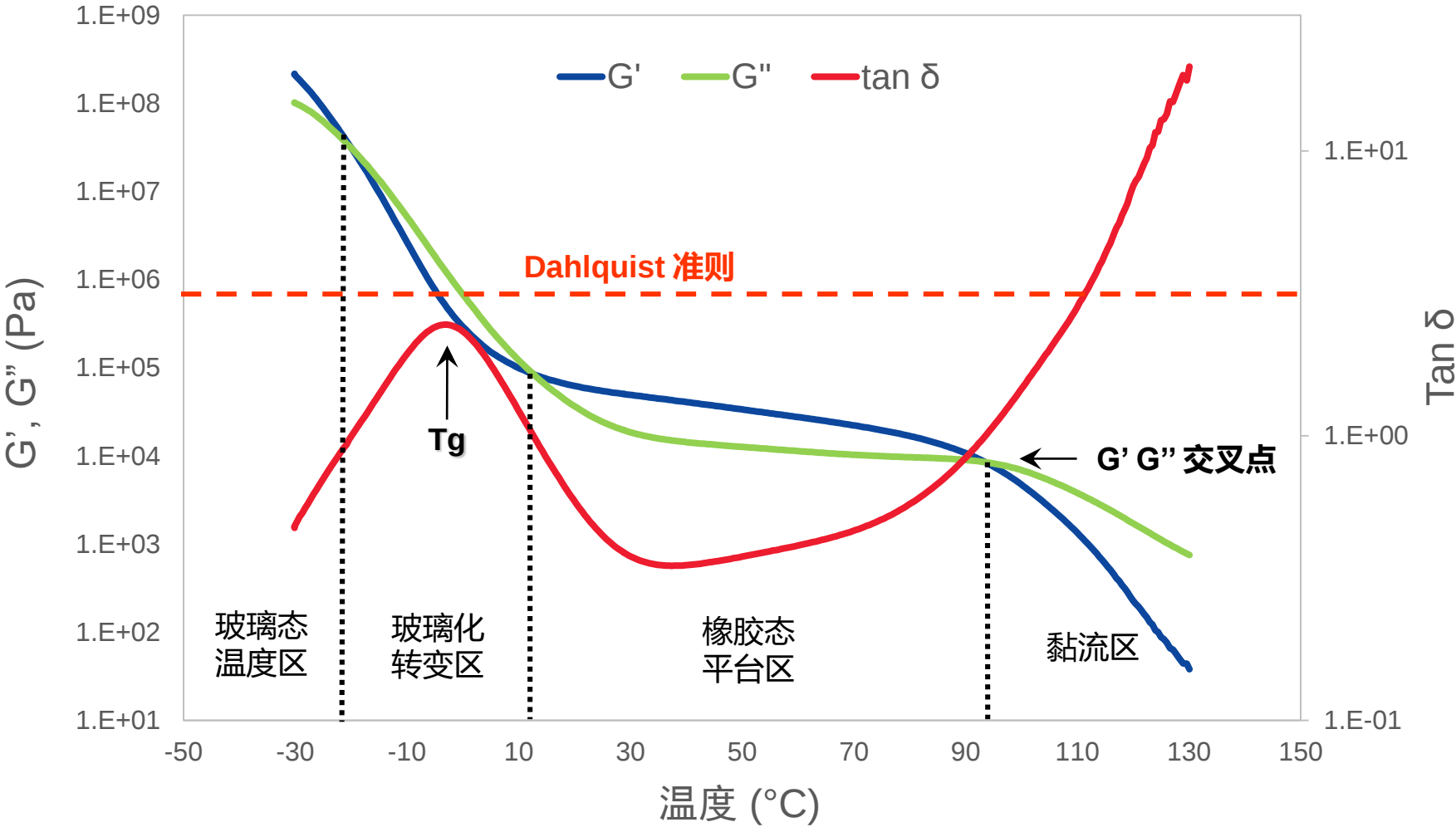
	Softening Point	Initial color 50% in toluene	Glass transition temperature, Tg	GPC molecular weight	
				Mn	Mw
Unit	°C	YI	°C	g/mol	g/mol
Test Method	ETM 22-24	ETM 22-13	ETM 300-90	ETM 300-83	ETM 300-83
Escorez 5300 Series - water white hydrogenated cycloaliphatic resins					
Escorez 5300	105	≤ 1	55	410	670
Escorez 5320	124	≤ 1	74	400	700
Escorez 5340	139.5	≤ 1	86	400	730
Escorez 5380	86.2	≤ 1	36	350	580
Escorez 5400 Series - light color hydrogenated cycloaliphatic resins					
Escorez 5400	103.4	≤ 2	49	400	670
Escorez 5415	118.3	≤ 2	66	370	720
Escorez 5600 Series - light color hydrogenated aromatic modified cycloaliphatic resins					
Escorez 5600	102.5	≤ 2	52	500	800
Escorez 5615	117.8	≤ 2	68	570	880
Escorez 5637	129.7	≤ 2	77	570	820
Escorez 5690	90.5	≤ 2	39	450	760

Typical values are not specifications, but are provided to aid formulators in the selection of products for evaluations.

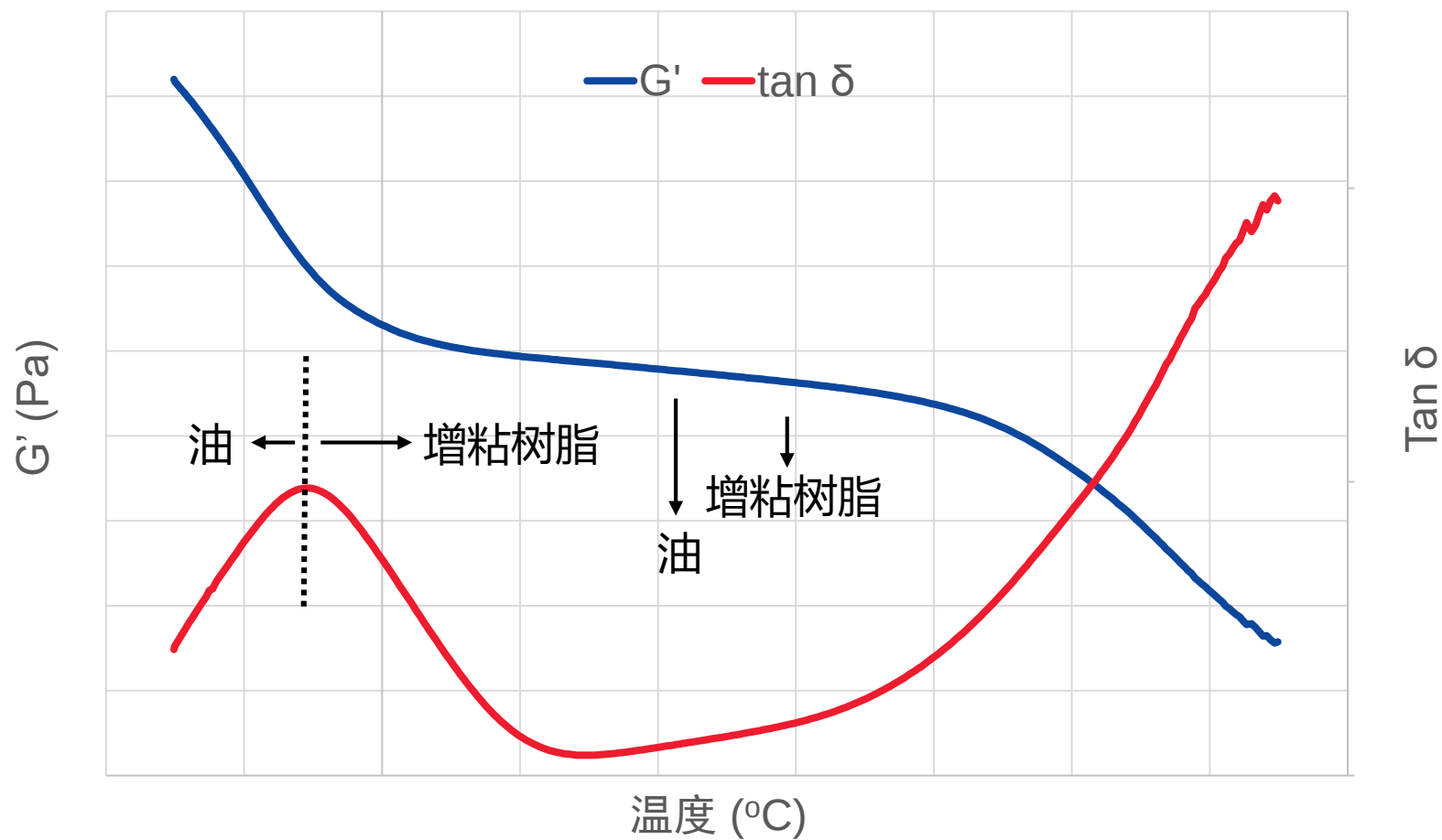
热熔压敏胶配方设计指导原则

热熔压敏胶流变性能

热熔压敏胶样品流变测试



热熔压敏胶配方设计



总结

- 对可持续发展以及低VOC的需求驱动热熔压敏胶的发展
- 增粘树脂是热熔压敏胶配方的重要组分
- 新加坡树脂厂是目前世界上最大的氢化石油树脂生产单元，将持续提供高品质增粘树脂，支持热熔压敏胶市场的发展

欢迎与我们进行更多的技术方面的讨论！

谢谢！

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