



Innovative Waterborne & UV Resins for Plastic & Automotive Interior Applications

用于塑胶与汽车内饰件的新型水性与**UV**树脂



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**DAOTAN™ TW 7000 Waterborne Resin
for Auto Interior Monocoat Applications that
Save Costs**

**DAOTAN™ TW 7000 可节约成本的汽车内饰单涂层
应用水性树脂**

- 2K PUD 双组分聚氨酯分散体
- Very high chemical and water resistance 很高的耐化学性和耐水性
 - *E.g. Volkswagen crème resistance requirements for automotive interior*
例如可通过汽车内饰标准中大众耐化学测试需求
- Very high film hardness非常高的涂膜硬度
 - *Up to 180 seconds pendulum hardness (DIN EN ISO 1522)* 摆杆硬度高达180秒
- High flexibility 高柔韧性
 - *Thermoforming of cured film possible (for foil coatings)*
涂膜固化后具有热塑性（用于金箔涂料）
- Used as sole binder or in combination with e.g. w/b acrylics
单独树脂应用或与水性丙烯酸组合使用
- Application for e.g. automotive interior/ exterior 汽车内/外饰的应用
- Formulation for e.g. high gloss or metallic monocoats 高光或金属单涂层配方应用

→ *Passes several automotive interior specifications* 通过多项汽车内饰标准
→ *Excellent flop if formulated into metallic monocoats* 用于单涂层金属配方中有很好的铝粉定向性

Pendulum hardness (König): 摆杆硬度

– **160 sec**

Water test (DIN EN ISO 2812-T2 - 16 h, 40 °C): 耐水性

– **pass**

Humidity chamber (DIN EN ISO 6270-2 - 240 h, 40 °C, 100 % rel. humidity): 湿度箱

– **pass**

Hydrolysis test according to VW-Norm TL 226 (72 h, 90 °C, 95 % humidity): 水解测试 (72小时, 90 °C, 95%湿度)

– ABS: **Full Adhesion before and after hydrolysis test**

水解测试前后完全附着

– PC*: **Full Adhesion before hydrolysis test but no adhesion after**

水解测试前完全附着但测试后无附着

Solvent resistance (Acetone spot test): 耐溶剂测试 (丙酮点滴)

– **bigger than 15 minutes 大于15分钟**

* Improved version of hydrolysis test on PC available this year, P C水解测试性能改进版今年将上市。

Coating Basic Properties Results 涂膜基本性能

Test测试	Result结果
Pendulum hardness (König) 摆杆硬度	120 sec
Gloss at 20° 光泽 (20°)	87
Hydrolysis ¹ 水解测试	ABS: Adhesion before and after 前后都有附着
Hydrolysis ² 水解测试	PC: Only adhesion before 只测试前有附着
Acetone resistance 耐丙酮测试	2.5 min

- 1) According VW-Std. TL 226:
- 2) 72 h, 90 °C, 95 % humidity)
- 3) Improved version of hydrolysis test on PC available this year.



Properties Formulation

Aluminum orientation (flop):
铝粉定向

16.0 (much improved when modified with
other PUDs)

当有其他聚氨酯分散体改良时有很大改善

RCA:
Gloss (60°):

> 220 cycles at 175 grams weight
55

Humidity:

10 days @ 45°C with 100 % relative

Boiling water:

2 hours at 100 °C water 耐水煮2小时

Cross cut:

GT0 (ABS, 1mm, 24um)

- Very good chemical resistance (acetone)
耐化学性非常好 (丙酮)
- PUD modification (e.g. VTW 1262, etc)
for improved appearance and gloss
聚氨酯改良 (如VTW 1262 等) 用于改善外观
和光泽



DAOTAN TW 7000/40WA combines all properties required to serve the needs of most demanding industrial plastic and metal coatings, e.g. outstanding chemical resistance and high hardness, while keeping high flexibility, making it a first choice binder for

DAOTAN TW 7000/40WA 结合了可以满足最苛刻工业塑胶和金属涂料的需求性能，如卓越的耐化学性和高硬度，同时具有高柔韧性，使其成为以下应用的第一选择：

- Clear and pigmented topcoats 清漆和颜料面漆
- Basecoats 底漆
- Mono coats (eliminating the need for an adhesion primer and its associated cost)

单涂层（减小附着力促进底漆和相全成本）

High Quality Plastic and Metal Coatings 高质量塑胶和金属涂料

EBECRYL™ 8110

**A Novel Specialty UV Resin as Easy-to-Clean
Modifier for Energy Curable Coatings**

EBECRYL 8110

用于改良能量固化涂料易清洁效果的新型UV树脂

Test formulation 测试配方

Ingredient 成分	%
6f aliphatic urethane acrylate 6官脂肪族聚氨酯丙烯酸酯 EBECRYL*	38.4
TMPTA	19.2
PETIA	14.4
EBECRYL 8110	24
Esacure KS 300	4

Total 100

* like EBECRYL 1290, EBECRYL 1290N, EBECRYL 8301R
例如EBECRYL 1290, EBECRYL 1290N, EBECRYL 8301R

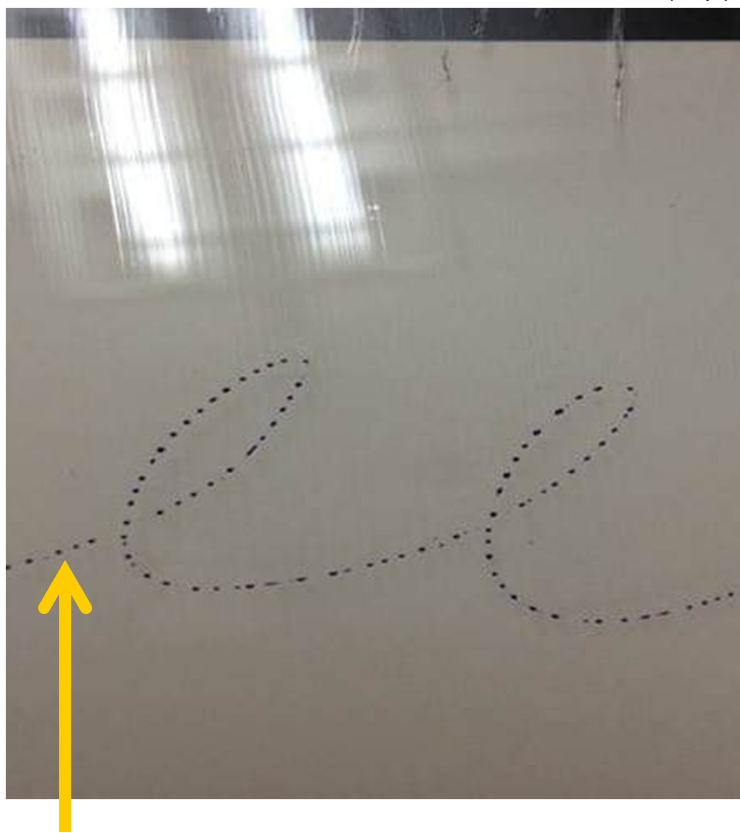
Benchmarks 评估

COMP1, COMP2 & COMP3 = commercial competitor E2C SB UV formulations, 40 % solids in solvent(s) 竞争对手UV配方, 40%固含

Application conditions 应用条件

250 μ thick PETg substrate, dry coatweight of 12.5 μ, 10 min. flash-off at 50°C, UV curing dosis = 1 J/cm² 250微米 PETg 材质, 12.5微米膜厚, 50°C下10分钟干燥, UV固化能量 = 1焦耳/平方厘米

E2C formulation with 25 % EBECRYL 8110:
25% EBECRYL 8110的易清洁配方



Strong beading of permanent marker ink on freshly cured E2C formulation 25 % EBECRYL 8110
油性记号笔墨水在刚固化的25% EBECRYL 8110 配方上的强力起珠效果



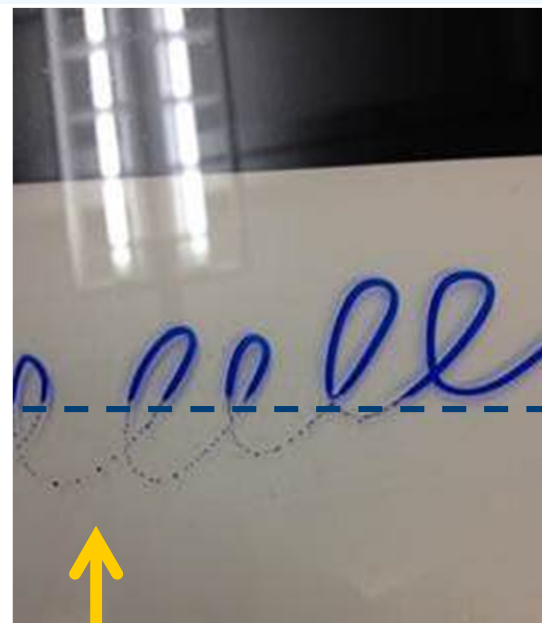
Ink beading is maintained after 200 steel wool
200次钢丝绒测试后仍然保持墨水起珠效果

EBECRYL 8110 outperforms competitor products incl. UV additive based coating (COMP1) in long lasting easy-to-clean surface effect.
EBECRYL 8110 在表面易清洁性能的长效表现上由于竞争产品, 包括助剂作用型涂料 (竞争产品1):



Poor permanent marker ink repellency on freshly cured **COMP3**

刚固化的**竞争产品3**耐油性记号笔性能不佳

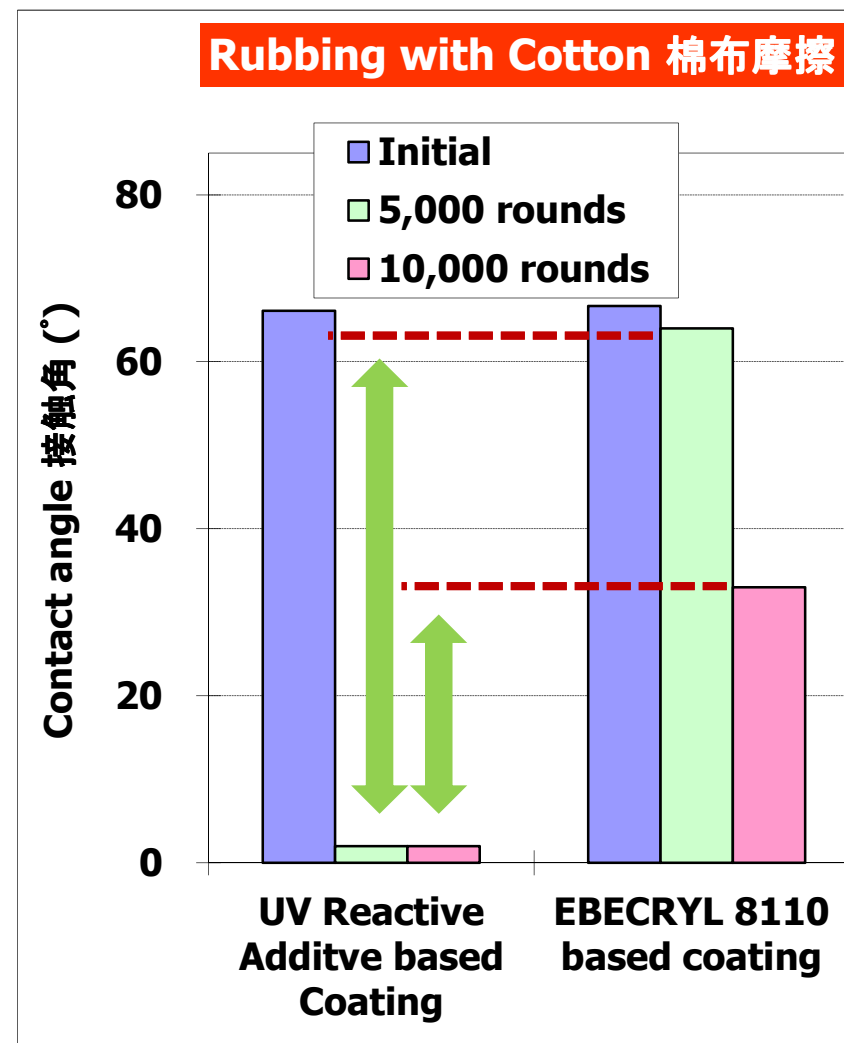
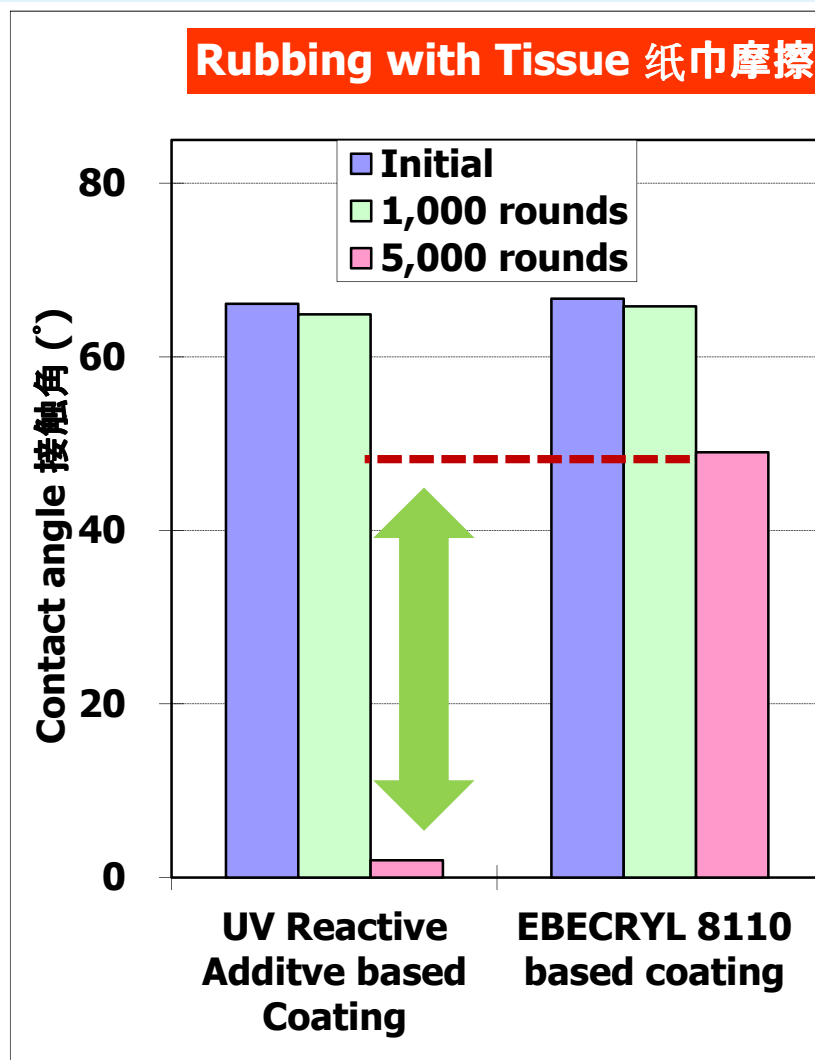


Abraded area
耐磨测试区域

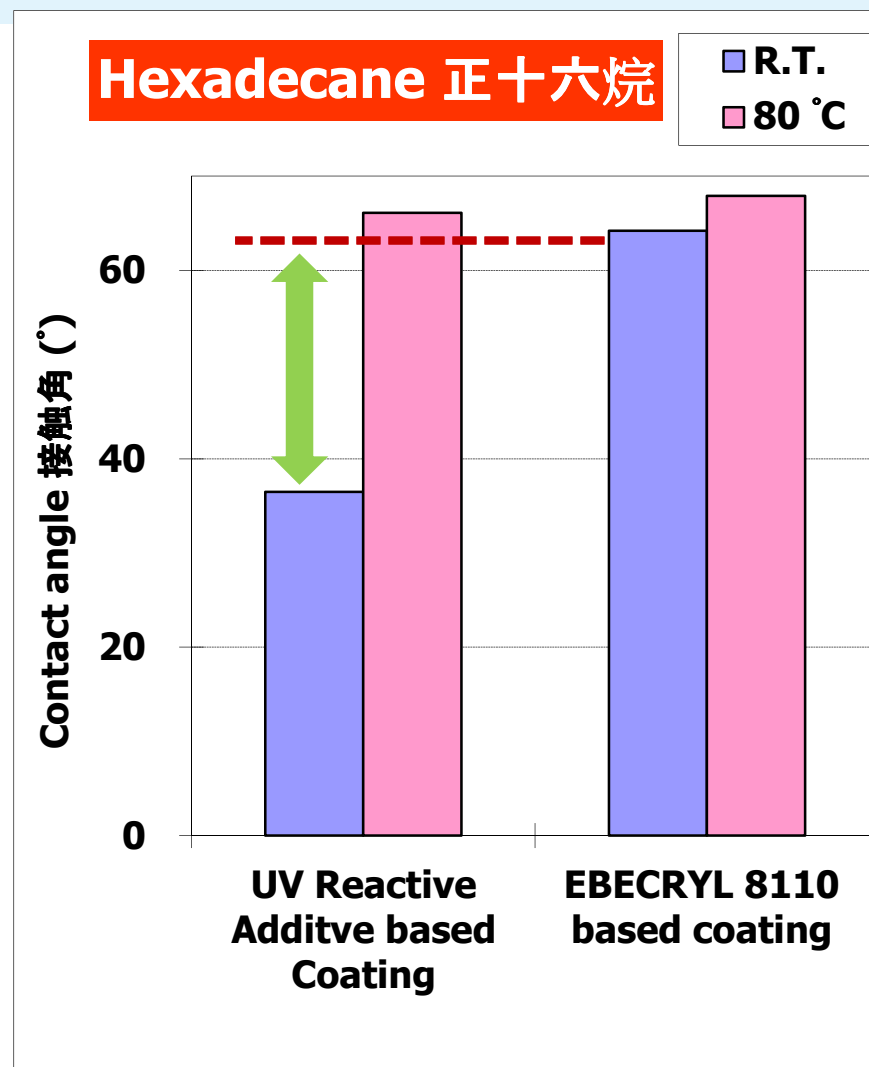
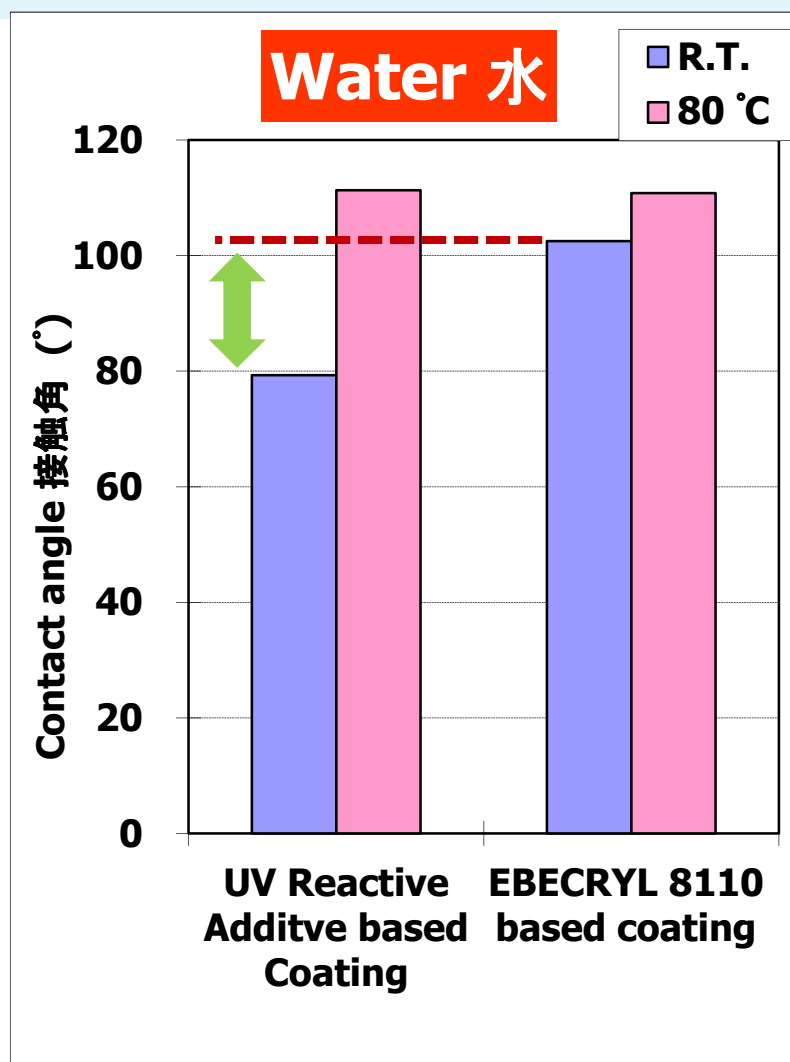
Intact area
未做耐磨测试

The good permanent marker ink repellency on freshly cured **COMP1 (UV Additive based coating)** is lost after 200 steel wool rubs.

竞争产品1(助剂作用型涂料)的耐油性记号笔性能在200次钢丝绒测试后消逝



Once more EBECRYL 8110 significantly outperform in surface effect UV Reactive Additives in Durable Test
EBECRYL 8100在磨损测试中明显优于UV反应型助剂



EBECRYL 8110 outperforms UV Reactive Additives on Cure right after Application (no "flashing") EBECRYL 8100 在UV固化后的即时性能优于UV反应型助剂 (无需溶剂挥发时间)

Upgrade your products with easy-to-clean fingerprint coatings that also resist permanent markers and stains with Cytec's EBECRYL 8110

A new patented resin that perfectly balances cost with invaluable benefits to achieve aesthetic appeal, enhance performance and durability.

- ✓ **Low surface energy**
- ✓ **Easy-to-clean fingerprint without smudge**
- ✓ **Outstanding and long lasting cleanability**
- ✓ **Excellent oil, ink and water repellency**

使用氰特的EBECRYL 8110提供的指纹易清洁、长效耐油性记号笔耐污涂料来升级您的产品。

这个新型专利产品能够在满足审美，性能与耐久度方面的需求的同时还拥有完美的性价比。

- ✓ **低表面能**
- ✓ **轻松无痕清洁指纹**
- ✓ **出色的长效易清洁性能**
- ✓ **优异的抗油，抗墨水和抗水性**



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