



COATINGS

ULTRAFILM[®] 5000

COALESCING AGENT
TO IMPROVE FILM
FORMATION



OXITENO

Evolution by chemistry



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ULTRAFILM® 5000 is a patented technology designed to be a more compatible coalescing agent for acrylic, vinyl-acrylic and styrene-acrylic latexes delivering performance benefits.



BENEFITS

- Better film formation
- Reduces water sensitivity
- Improves hardness evolution: lower dirty pickup
- Films with low blistering
- Low leaching





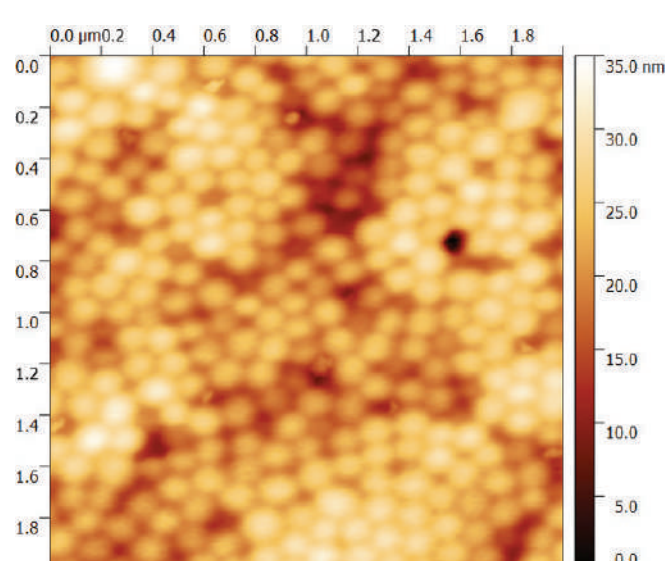
FEATURES

- Proprietary Ester
- 100% renewable
- Boiling point = 283 °C
- Efficient to reduce MFFT
- Package: Sample, Drum, Bulk

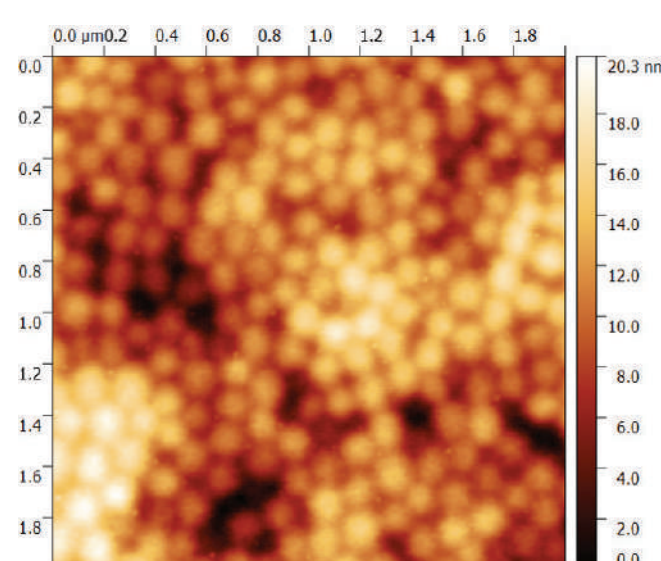


PERFORMANCE TESTS

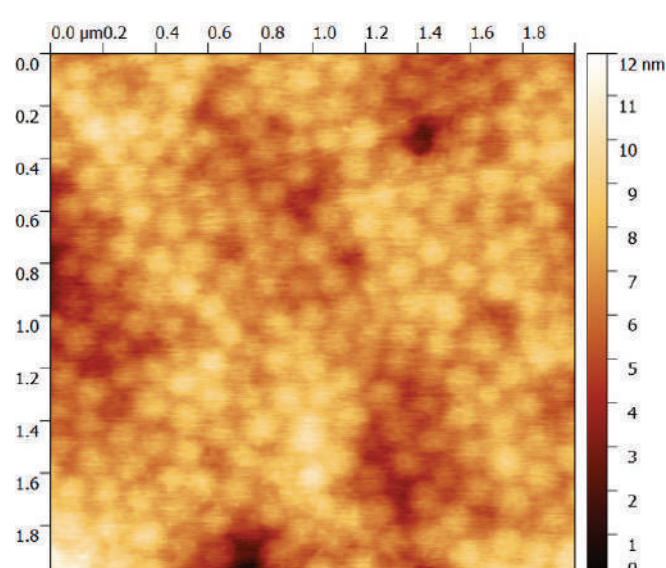
Film Formation



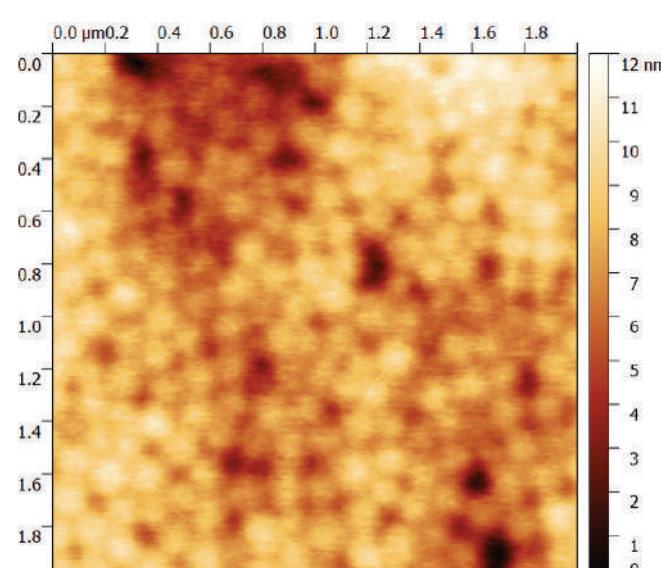
ACRYLIC LATEX



ACRYLIC LATEX + 6PHP OF COALESCENT 1



ACRYLIC LATEX + 6PHP OF COALESCENT 2



ACRYLIC LATEX + 6PHP OF ULTRAFILM® 5000

- Better coalescence: reduced particle's domains

- Lower average height – smoother film

Instrumental test: AFM (Atomic Force Microscopy).

Tested latex: Pure Acrylic (MFFT ~ 17 °C | T_g ~ 29 °C).

Test condition: Film cast on Leneta chart and dried @ 25 ± 5 °C, 60% R.H. for 7 days.

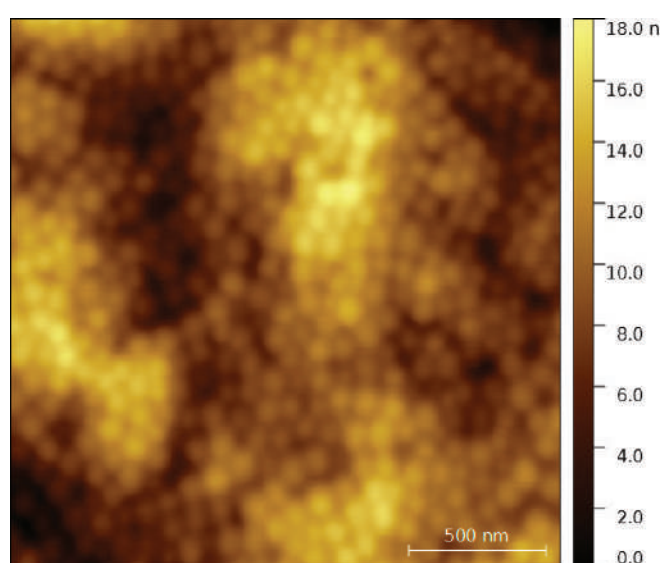
Coalescent 1: Boiling point @ 254 °C.

Coalescent 2: Boiling point @ 344 °C.

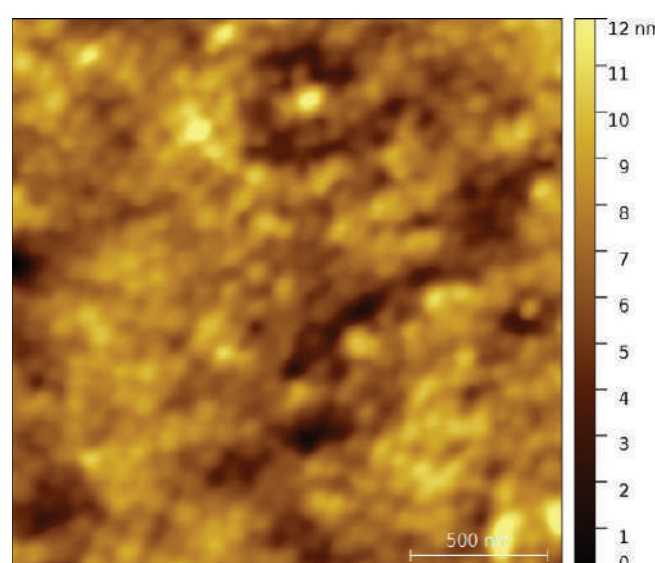


PERFORMANCE TESTS

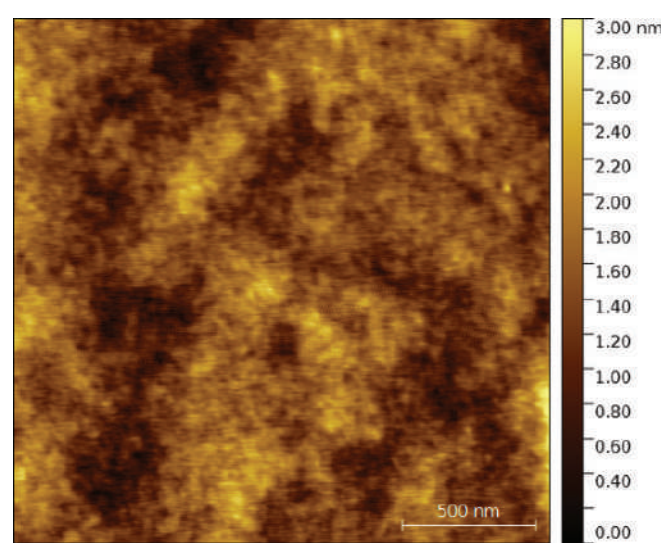
Film Formation



STYRENE-ACRYLIC LATEX



STYRENE-ACRYLIC LATEX + 10PHP OF COALESCENT 1



ACRYLIC LATEX + 6PHP OF ULTRAFILM® 5000

- Particle domains no longer perceivable – maximum entanglement of polymeric chains
- Lower average height – smoother film

Instrumental test: AFM (Atomic Force Microscopy).

Tested latex: Styrene-Acrylic (MFFT ~ 21 °C | T_g ~ 28 °C).

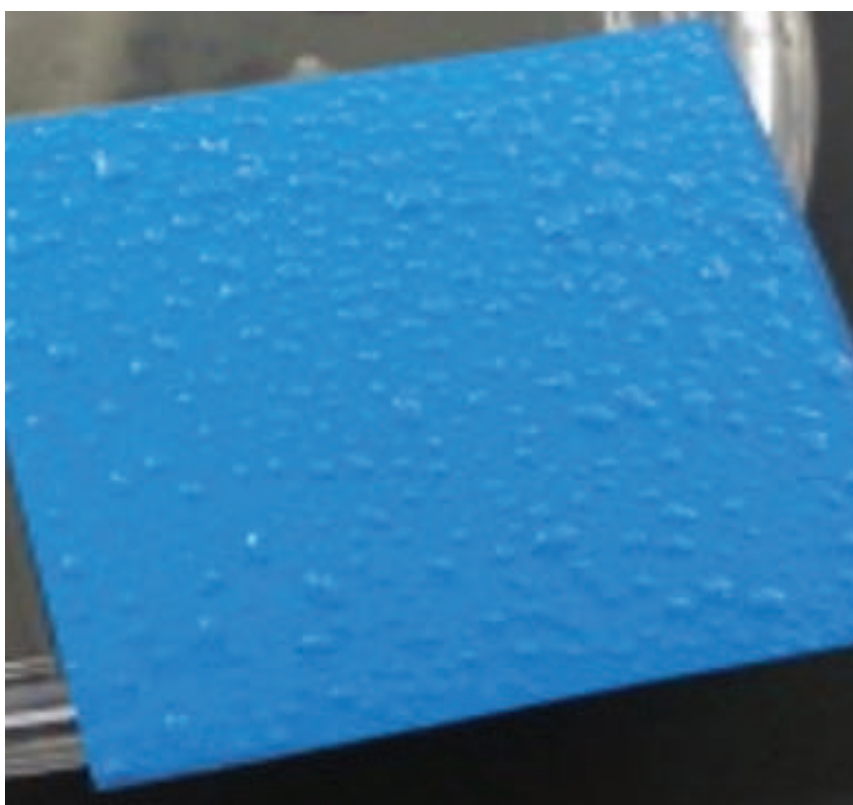
Test condition: Film cast on Leneta chart and dried @ 25 ± 5 °C, 60% R.H. for 7 days.

Coalescent 1: Boiling point @ 254 °C.



PERFORMANCE TESTS

Water Absorption

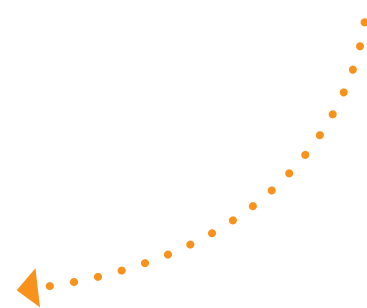


STYRENE-ACRYLIC
PAINT + 10PHP OF
COALESCENT 1



STYRENE-ACRYLIC
PAINT + 10PHP OF
ULTRAFILM® 5000

- Lower blistering
- Lower water absorption



Tested latex: Styrene-Acrylic (MFFT ~ 21 °C | Tg ~ 28 °C).

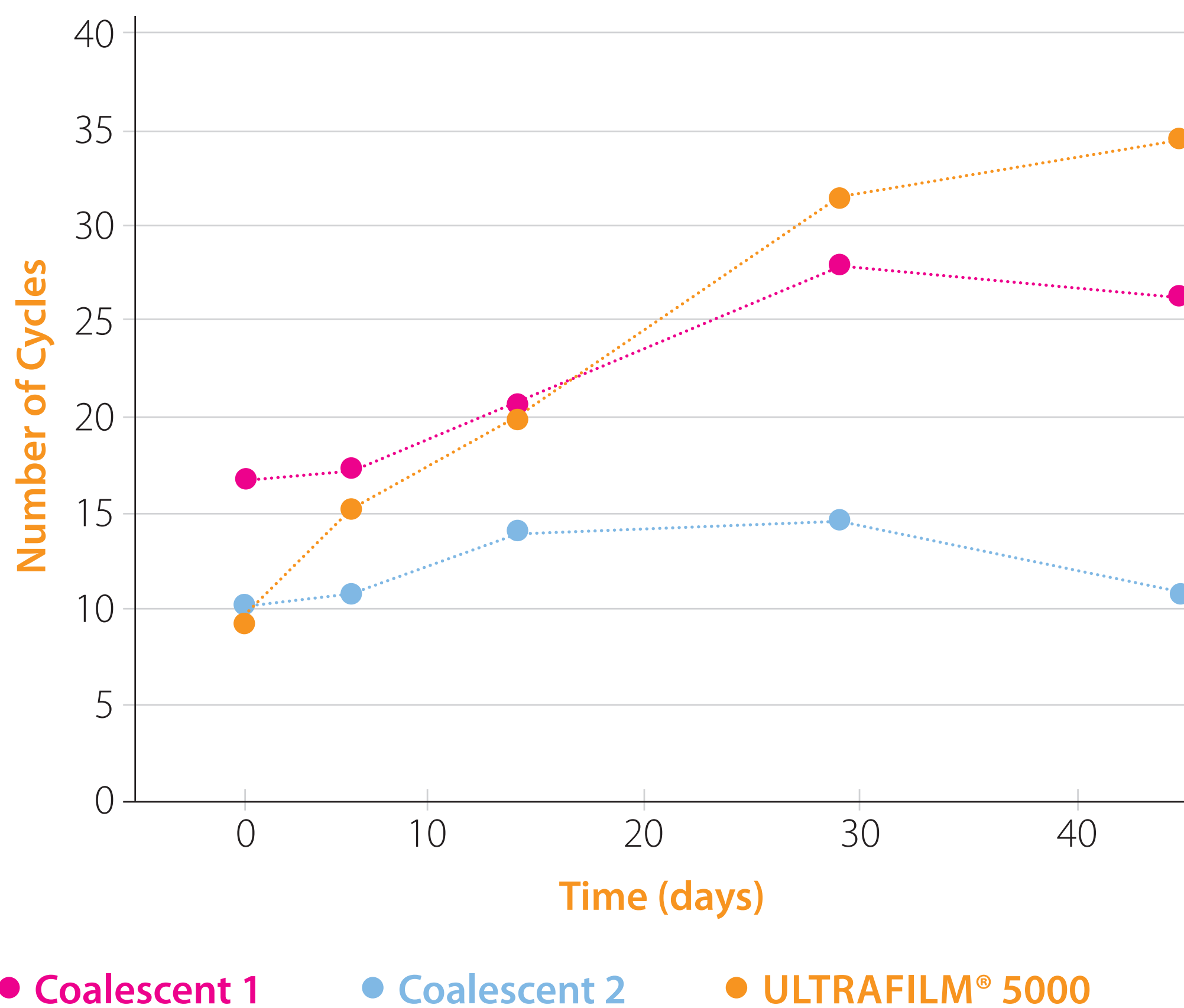
Test condition: 55% PVC blue paint cast on Leneta chart and dried @ 5 ± 2 °C, 60% R.H. for 1 day and immersed in distilled water for 4h.

Coalescent 1: Boiling point @ 254 °C.



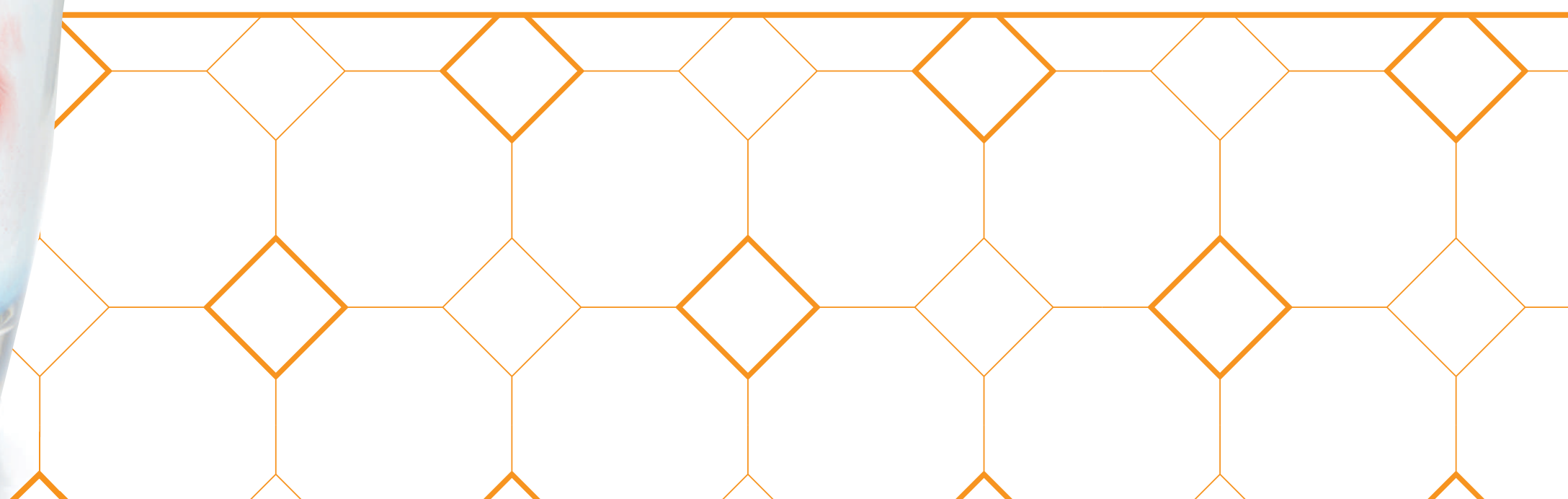
PERFORMANCE TESTS

Hardness Evolution – ASTM D4366



Coalescent 1: Boiling point @ 254 °C.

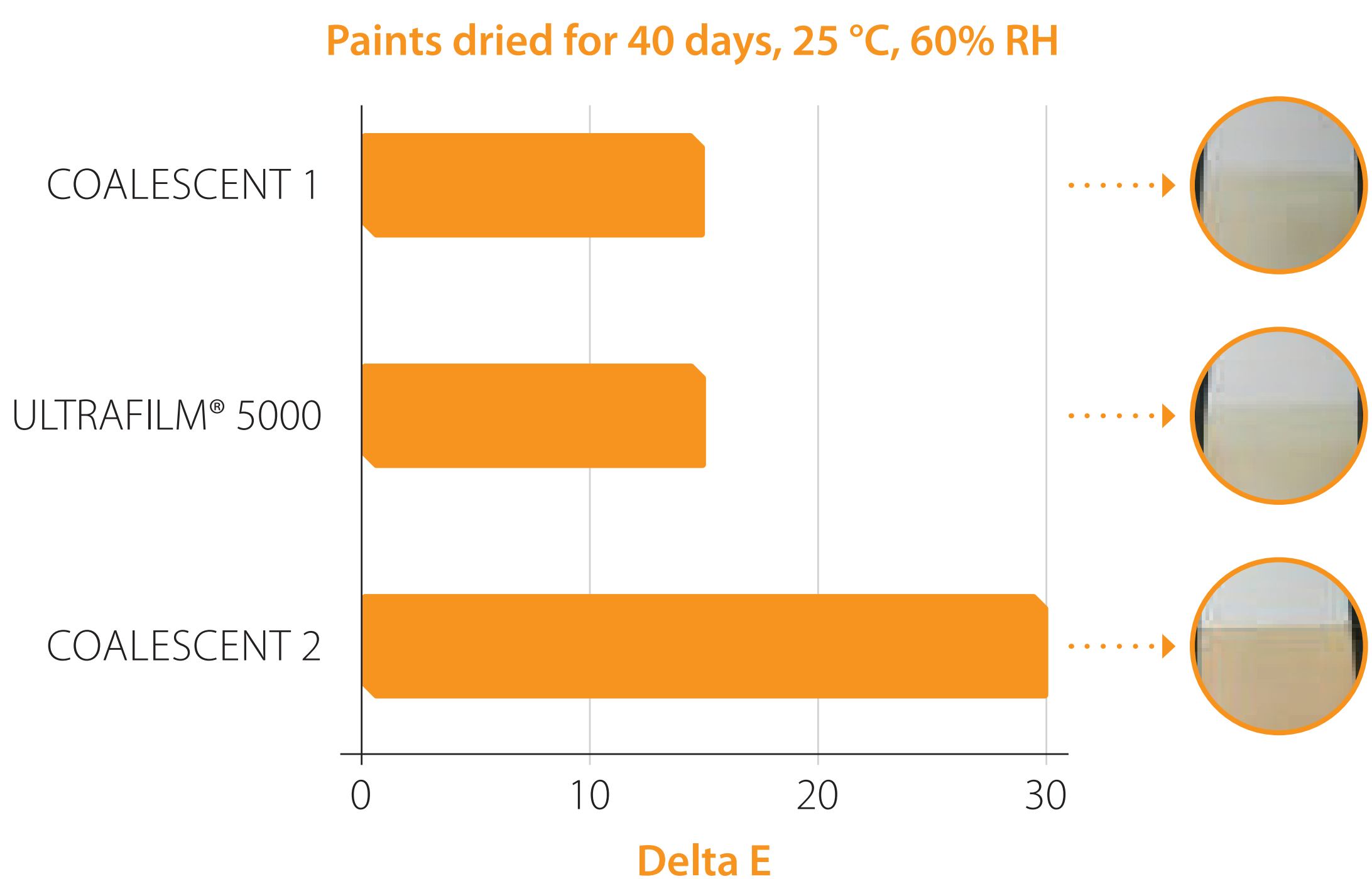
Coalescent 2: Boiling point @ 344 °C.





PERFORMANCE TESTS

Dirty pick up



Instrumental test: Oxiteno's Internal Method for Dirty Pickup.

Tested latex: Styrene-Acrylic (MFFT ~ 21 °C | Tg ~ 28 °C).

Test condition: 30% PVC paint cast on Leneta chart and dried @ 25 ± 5 °C, 60% R.H. Dirty was applied on the 40th day of drying.

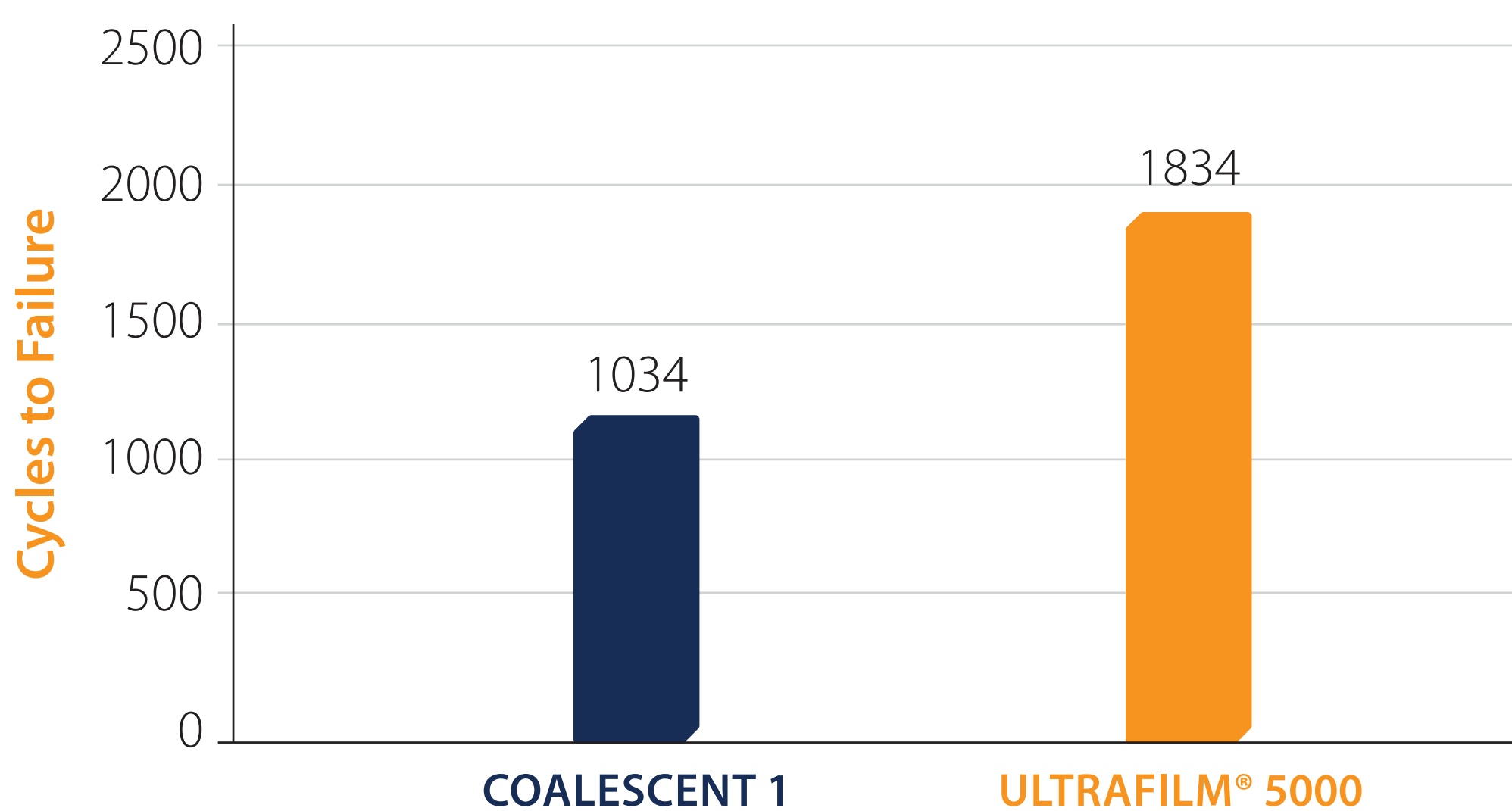
Coalescent 1: Boiling point @ 254 °C.

Coalescent 2: Boiling point @ 344 °C.



PERFORMANCE TESTS

Scrub resistance

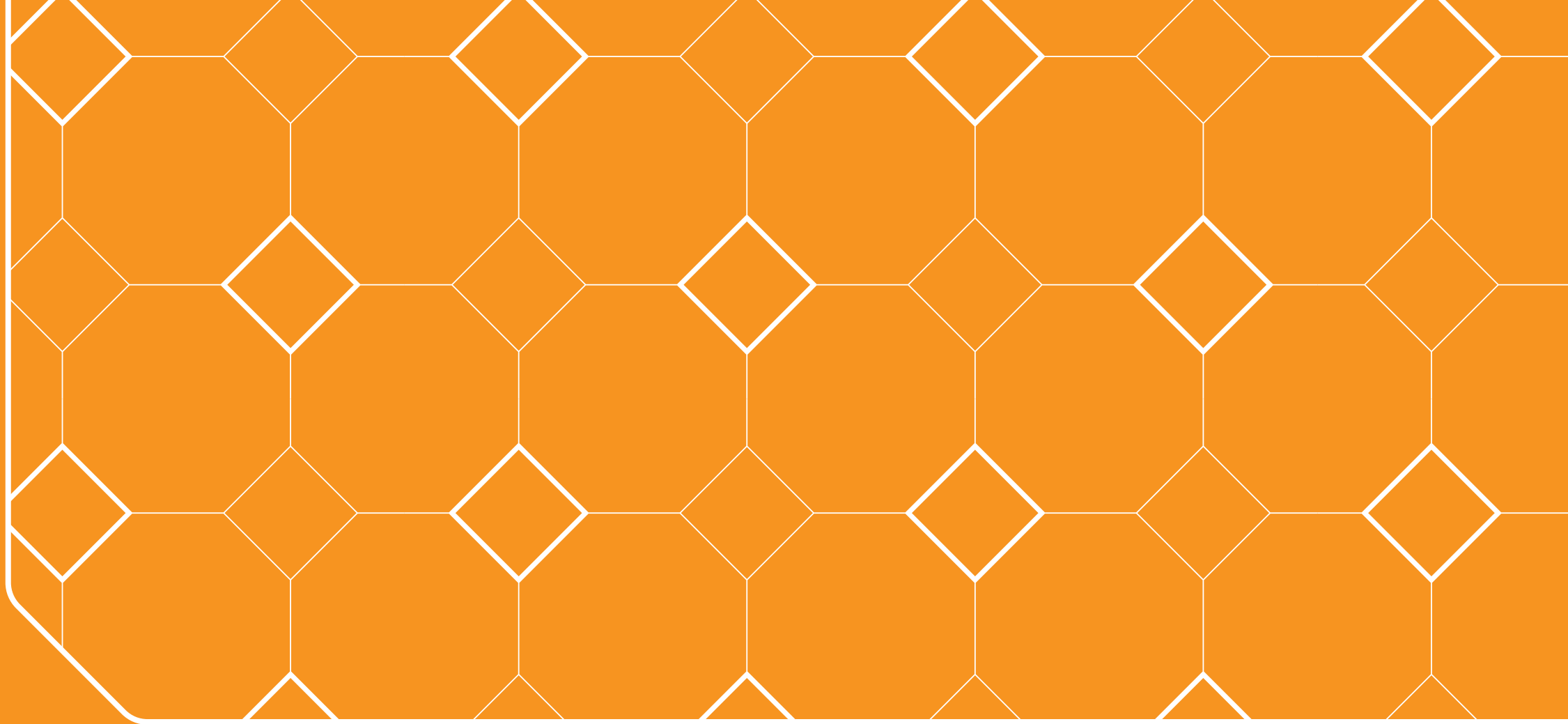


- Increased wet scrub resistance

Tested latex: Styrene-Acrylic (MFFT ~ 21 °C | Tg ~ 28 °C).

Test condition: 38% PVC paint tested according ASTM D2486.

Coalescent 1: Boiling point @ 254 °C.



If you are looking for better film
formation **ULTRAFILM® 5000**
is what you need!
Contact us and request a sample.



oxiteno.com/us/en/contact/



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