COATINGS

INDORAMA VENTURES

ULTRAFILM® 5400

A zero-VOC and effective coalescing agent for latex systems

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The new **ULTRAFILM® 5400** is an effective zero-VOC, low odor, coalescing agent. The product was developed for attending the most restringent VOC regulations worldwide and to present a broad compatibility with different types of latexes, with an easy incorporation process even at high temperatures.

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BENEFITS

- Zero-VOC to different normatives worldwide, including ASTM D6886-03 and SCAQMD Method 313
- Low odor
- High compatible with different latexes
- Ease for incorporation on paints and latexes. The product can be incorporated on latexes at high temperatures.
- High efficiency for reducing the MFFT of different latexes
- Improved film formation
- Excellent performance on final paints properties

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FEATURES

- Low viscosity clear liquid
- High efficiency for reducing MFFT
- NO significant contribution for VOC content according to the most restricted regulations, including ASTM D6886-03 and SCAQMD Method 313
- Package: Sample, Drum, Bulk

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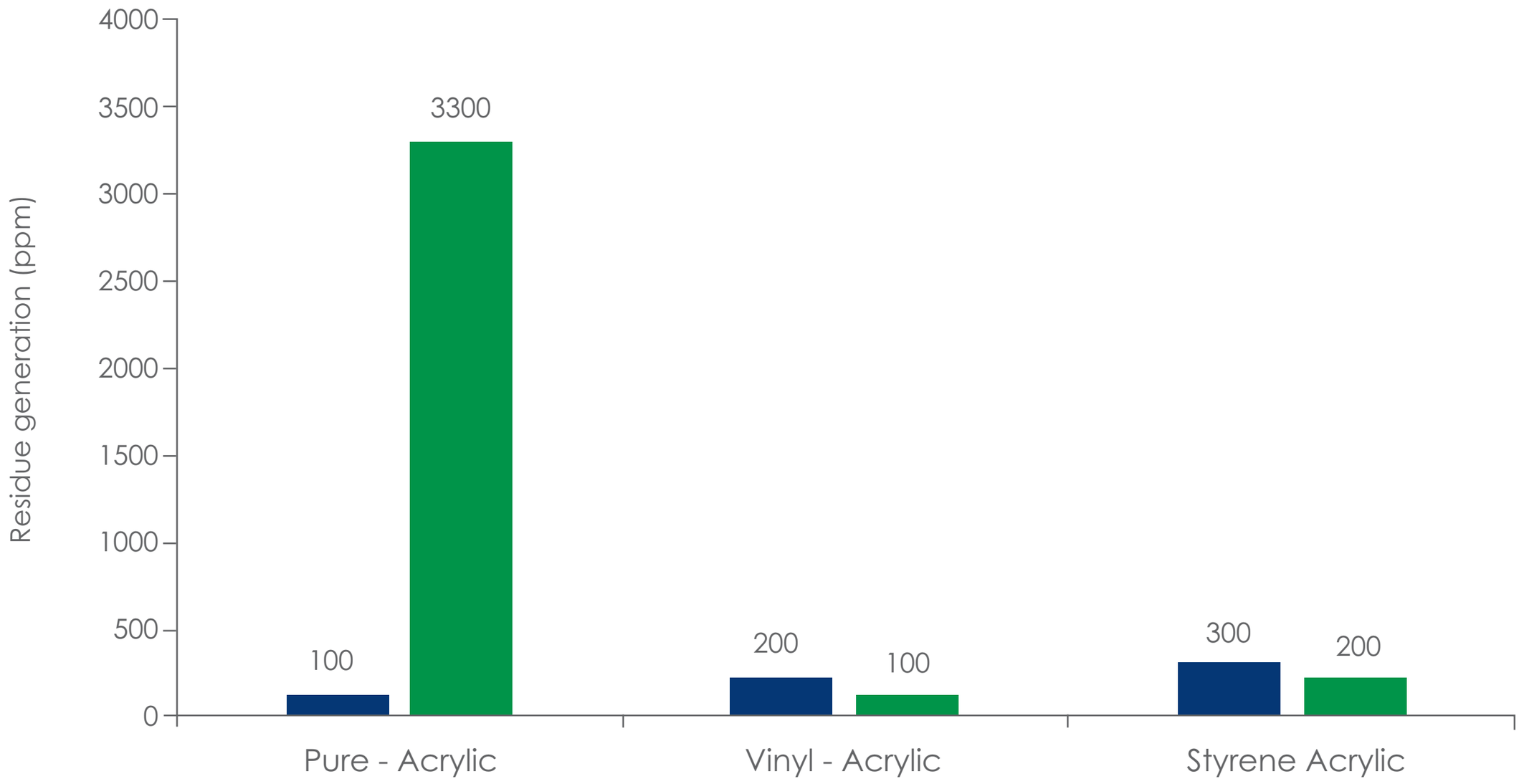
PERFORMANCE TESTS

Broad latex compatibility and ease incorporation

RESIDUE GENERATION DURING COALESCENTS INCORPORATION IN DIFFERENT LATEXES AT 50°C



*Competitor: Triethylene glycol bis (2-ethylhexanoate)

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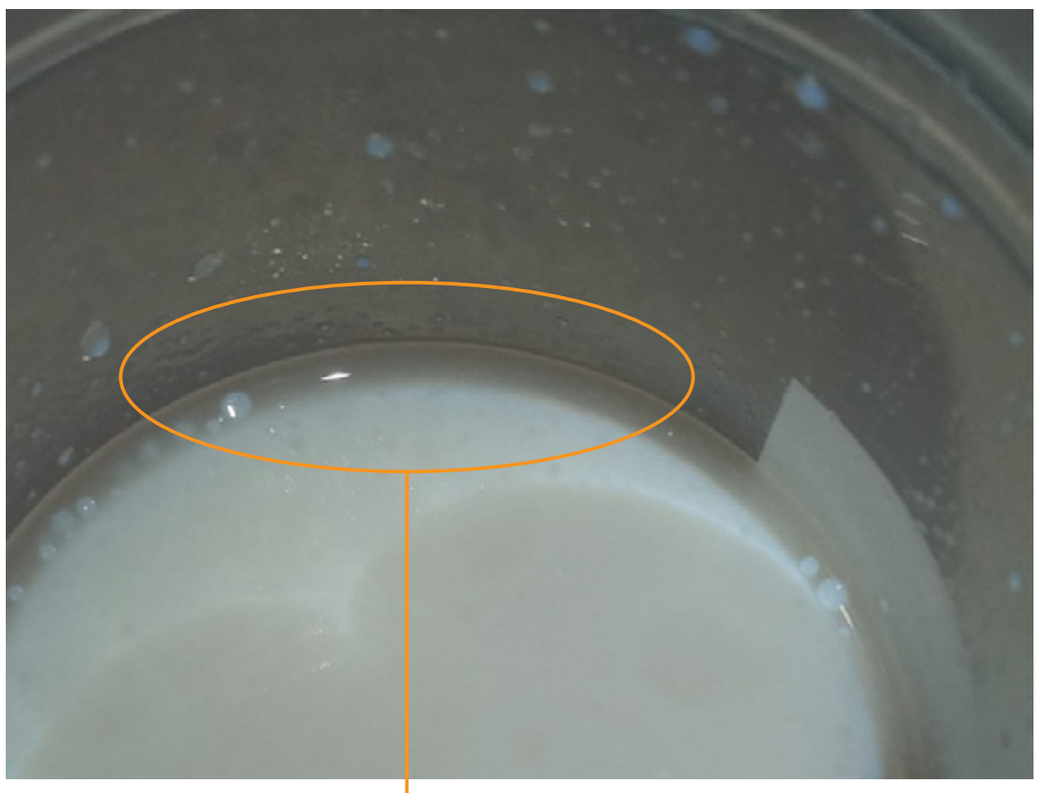
PERFORMANCE TESTS

Broad latex compatibility and ease incorporation

Aspect after 24h of coalescents incorporation on a pure acrylic latex at room temperature

ULTRAFILM® 5400
@3.0% PCP

Competitor
@3.0% PCP



Phase separation,
poor compatibility

ULTRAFILM® 5400 is highly compatible with different latexes and can be easily incorporated in the paint formulation or in the latex at room or high temperatures.

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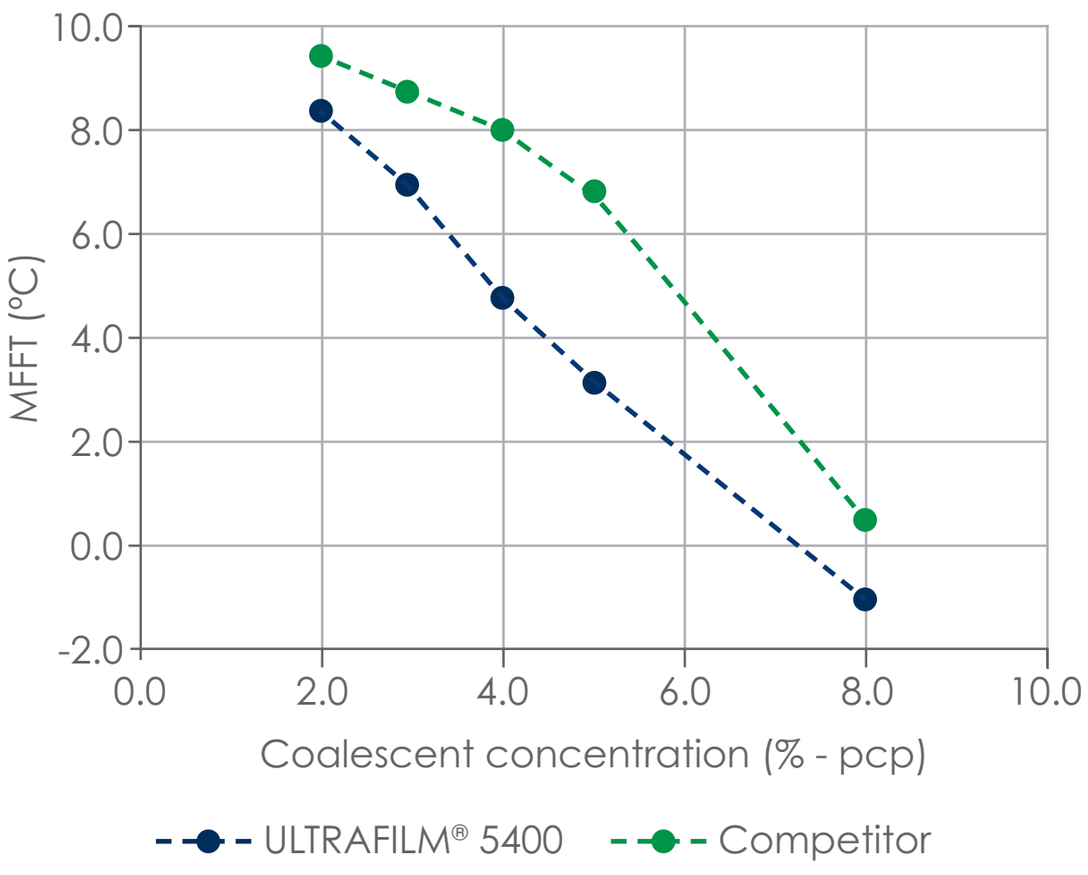
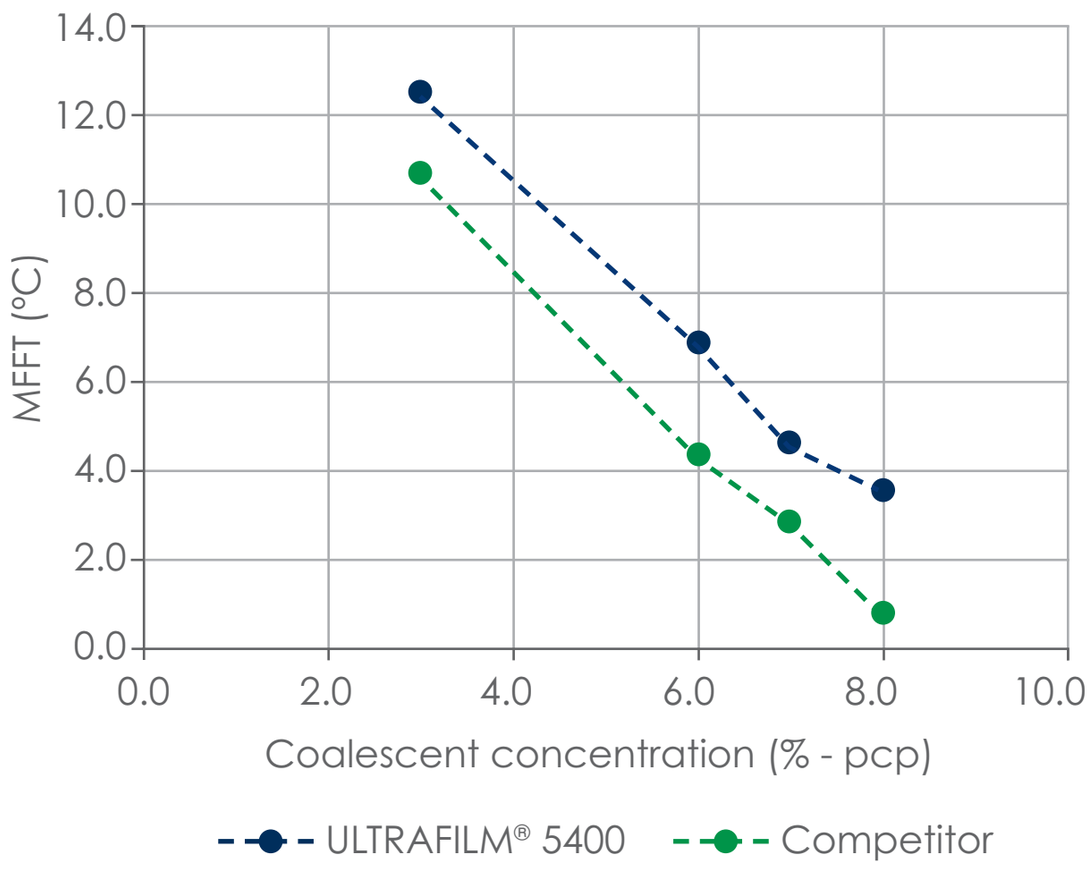
PERFORMANCE TESTS

MFFT reduction efficiency

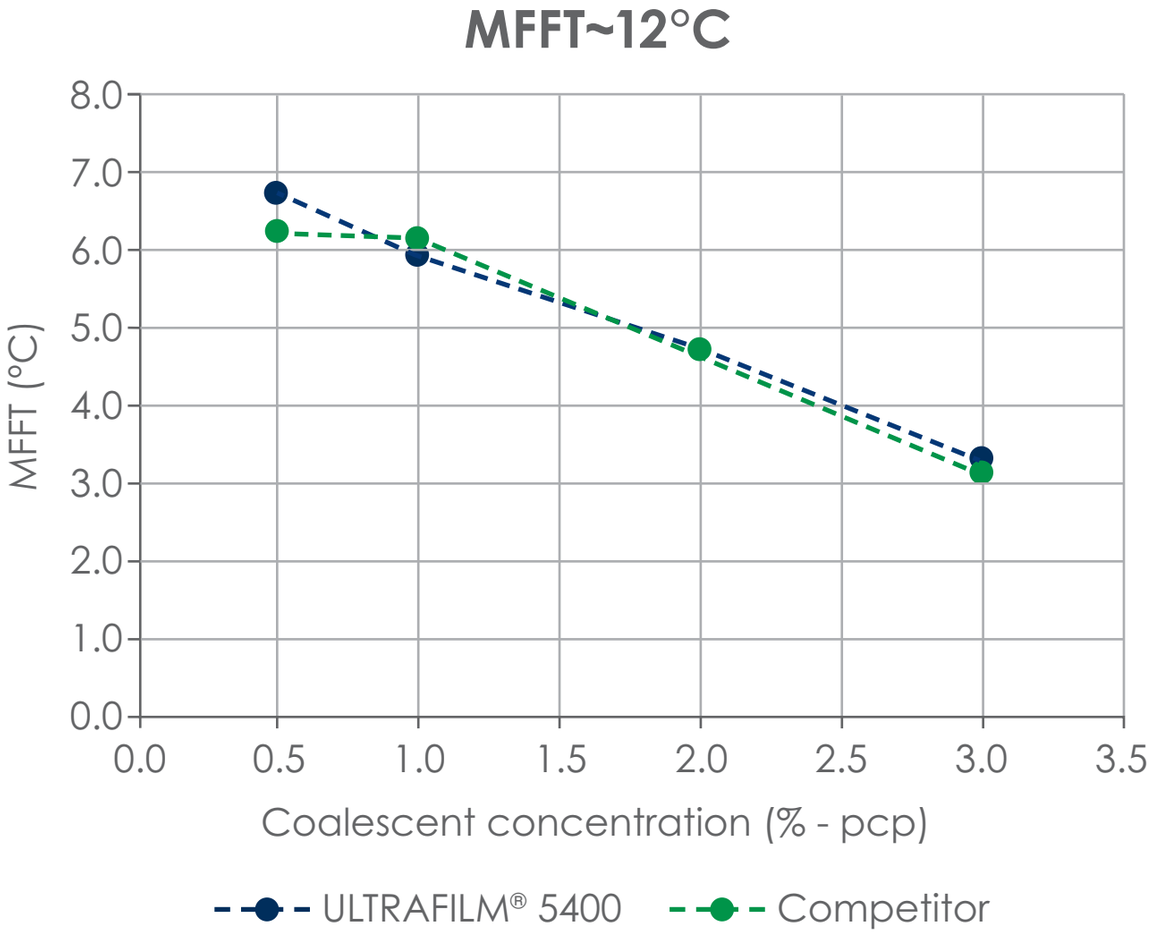
PURE ACRYLIC LATEX, TG~29°C | MFFT~20°C



STYRENE ACRYLIC LATEX, TG~30°C, MFFT~22°C



VINYL ACRYLIC LATEX, TG~17°C, MFFT~12°C



Due to its compatibility and ease for incorporation, **ULTRAFILM® 5400** is highly effective for reducing the minimum film formation temperature (MFFT) of different latexes.

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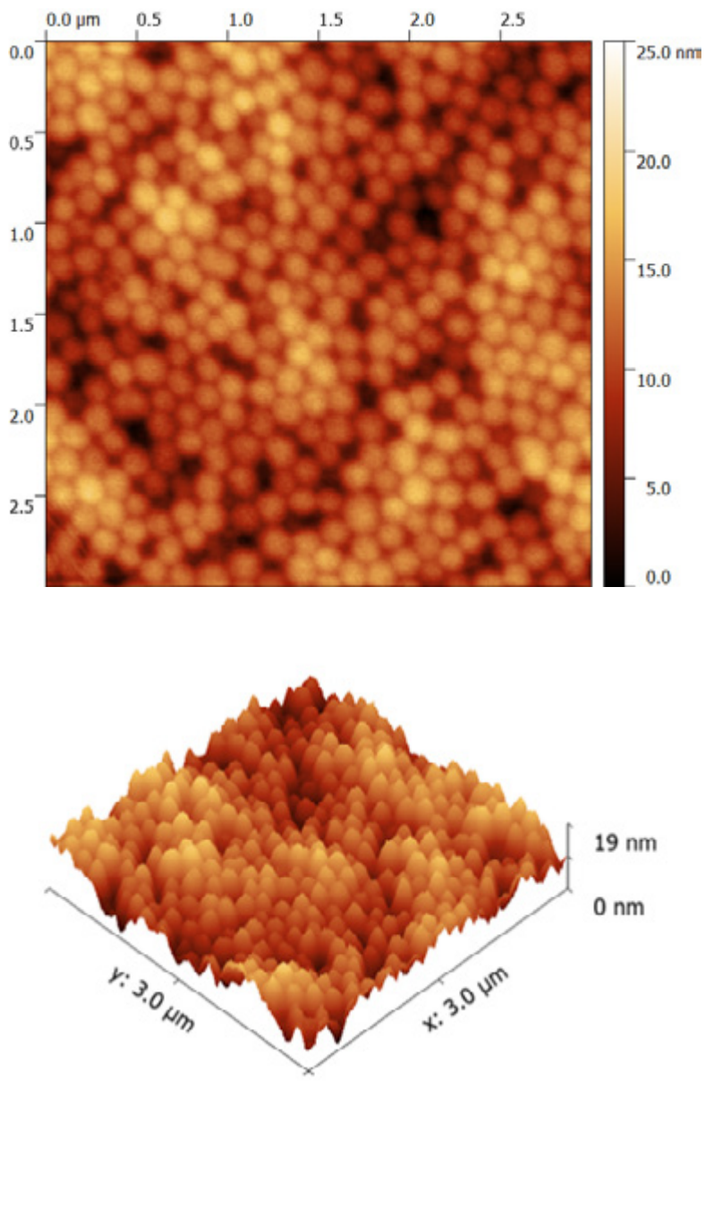
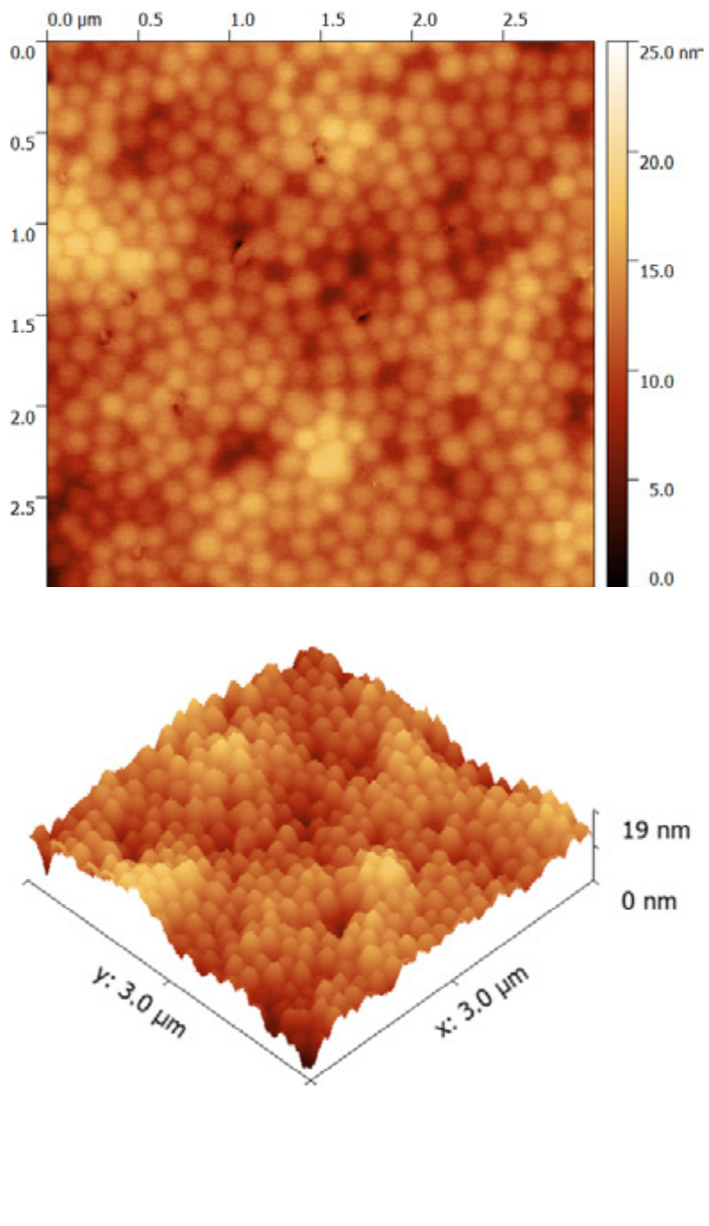
PERFORMANCE TESTS

Film formation

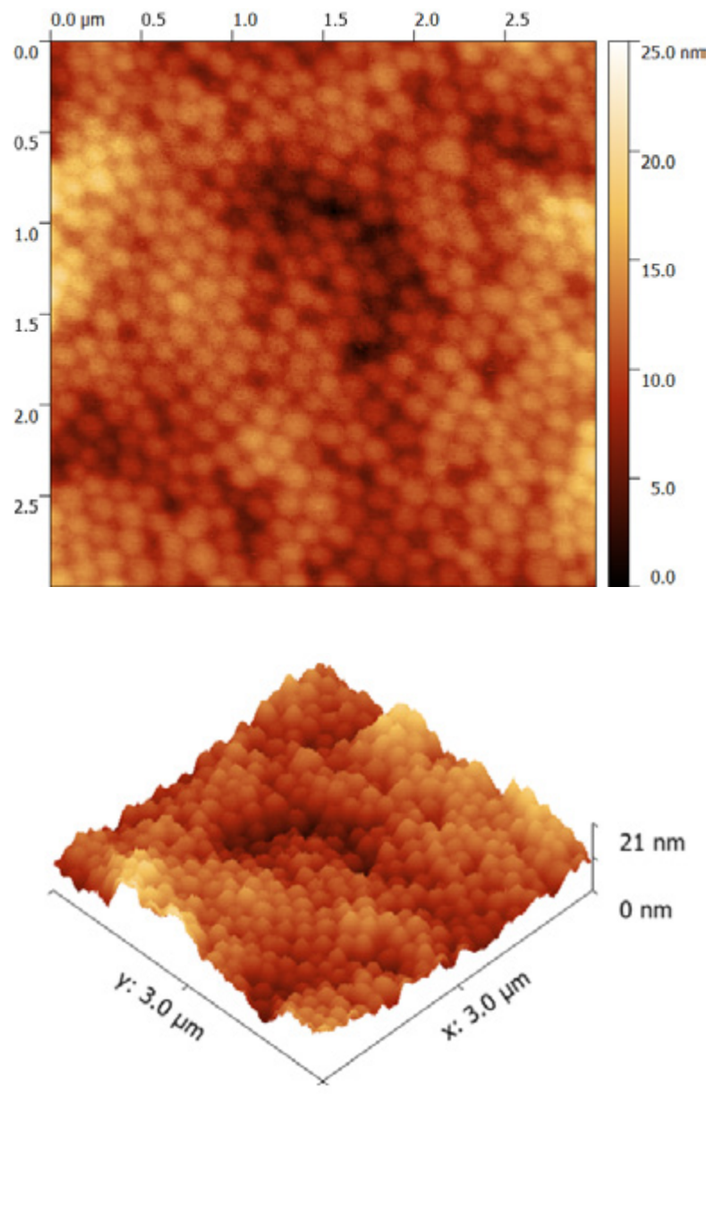
NO coalescent



ULTRAFILM® 5400 @3.0% PCP



Competitor @3.0% PCP



Statistical Quantities	NO Coalescent	ULTRAFILM® 5400	Competitor*
Sa (nm)	2.42	1.74	2.04
Sq (nm)	3.01	2.20	2.63

*Competitor: Triethylene glycol bis (2-ethylhexanoate)

Instrumental test: AFM (Atomic Force Microscopy)
Latex: Pure acrylic, Tg~29°C | MFFT~20°C
Test condition: film cast on Leneta chart and dried for 7 days @25± 5°C and 60% RH

Latexes films coalesced with **ULTRAFILM® 5400** present film formation quality improvements, resulting on optimized paints properties.

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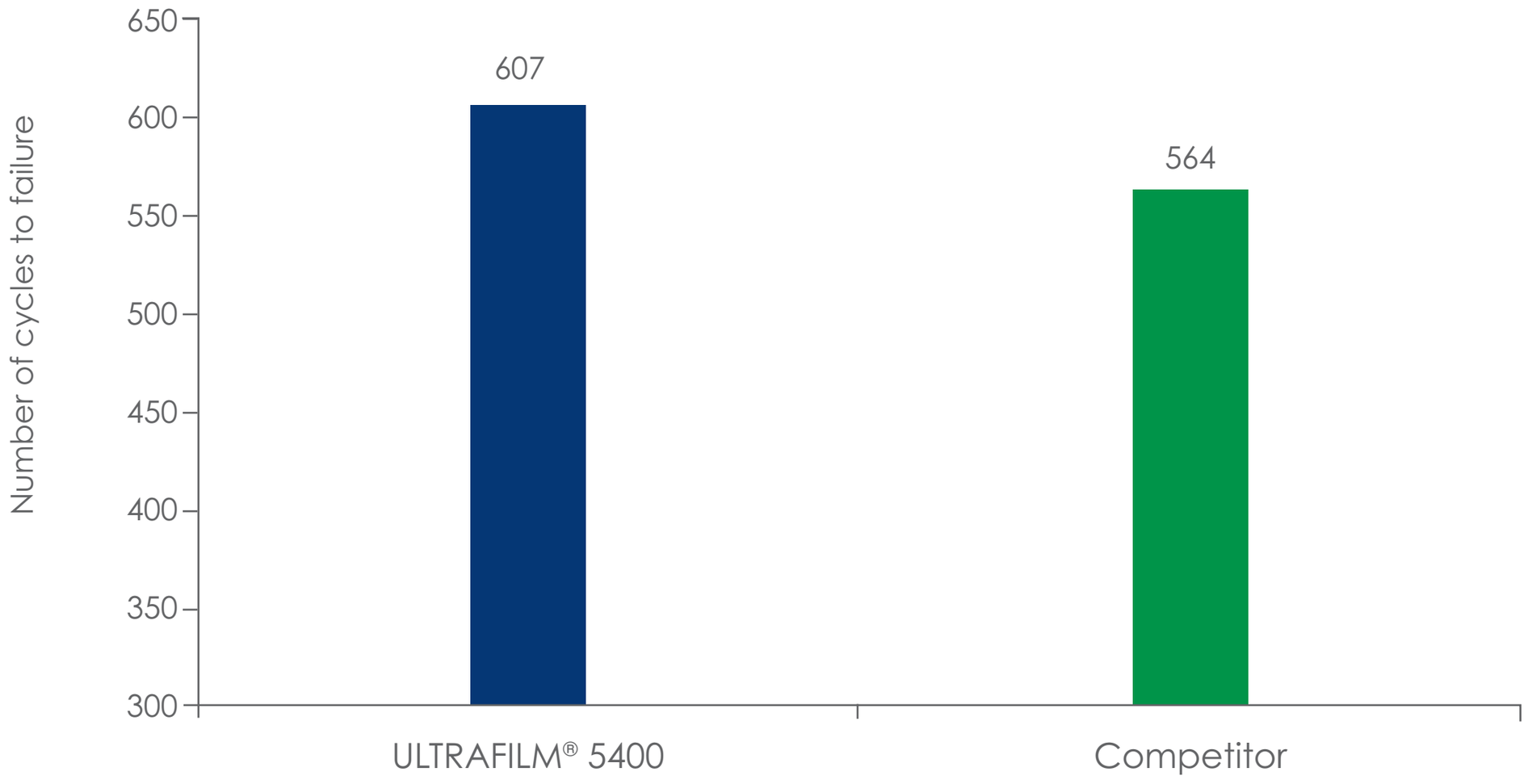
PERFORMANCE TESTS

Film formation and wet scrub resistance

Formulation	05LBR – Acrylic Semigloss
Latex	ENCOR® 636
Latex content	35%
PVC	32%
Coalescent content	1.38% (8.0 PCP)

WET SCRUB RESISTANCE - ASTM D2486-17 - METHOD A



*Competitor: Triethylene glycol bis (2-ethylhexanoate)

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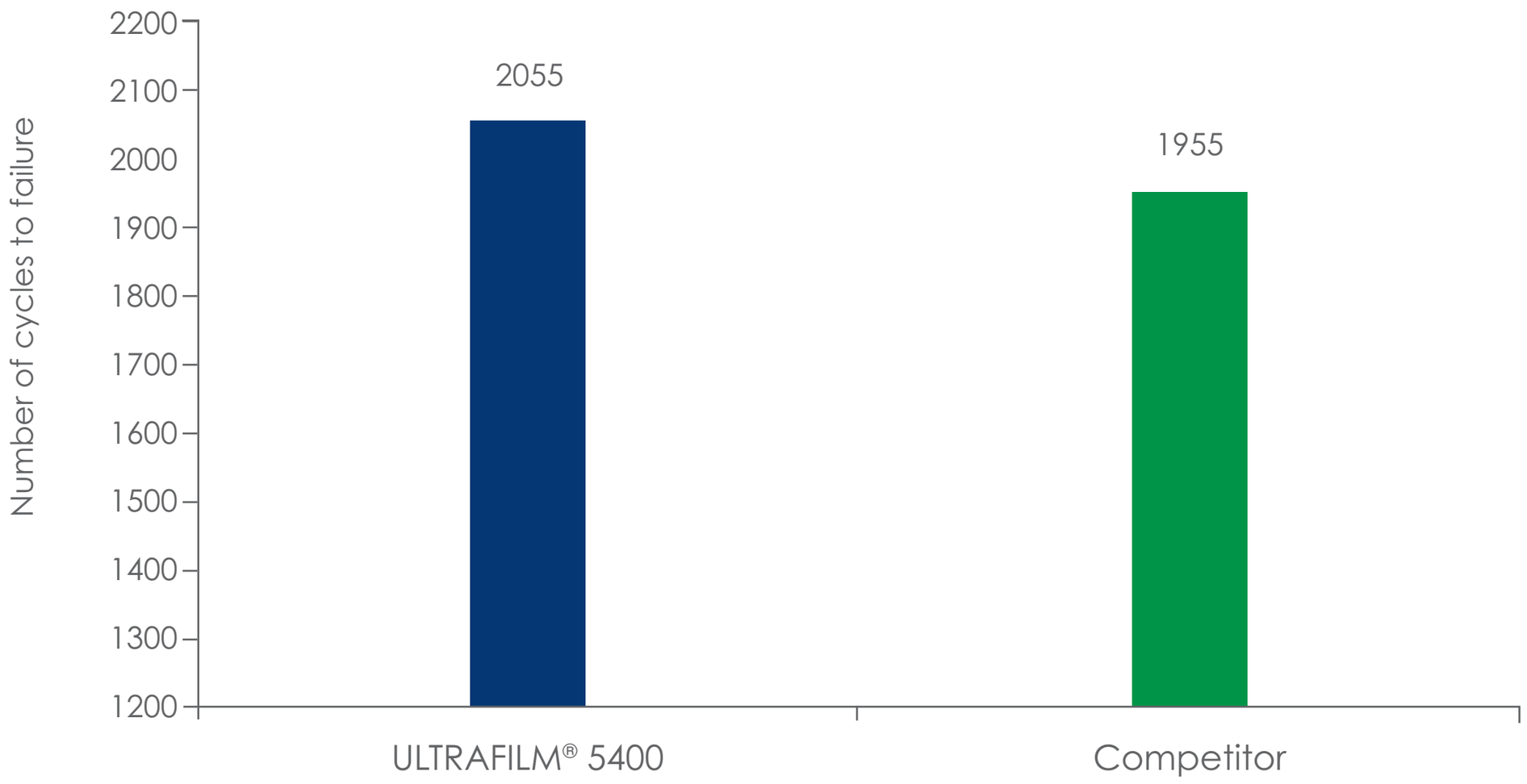
PERFORMANCE TESTS

Film formation and wet scrub resistance

Formulation	01LUS – Vinyl Acrylic Matte
Latex	Vinyl acrylic latex, Tg~17°C, MFFT~12°C
Latex content	28%
PVC	45%
Coalescent content	1.61% (7.7 PCP)

WET SCRUB RESISTANCE - ASTM D2486-17 - METHOD A



*Competitor: Triethylene glycol bis (2-ethylhexanoate)

Paints formulated with **ULTRAFILM® 5400** present excellent mechanical properties.

“If you are looking for a zero-VOC solution, **ULTRAFILM® 5400** is what you need!
Contact us and request a sample.

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