

## INTRODUCING A NEW STANDARD FOR PERFORMANCE

# OPTIMINE™ multifunctional additive

Enhanced pigment dispersion. Improved hiding and gloss. Excellent scrub- and corrosion- resistance. We developed our next-generation OPTIMINE™ multifunctional additive to be the only standalone ingredient on the market to outperform AMP in waterborne coatings applications.

### A new-to-world multifunctional additive and co-dispersant for paints and coatings

OPTIMINE is a new-to-world, readily biodegradable multifunctional additive developed over a decade of rigorous research and product testing to provide superior performance with an excellent safety profile. OPTIMINE provides exceptional performance as a high-efficiency stabilizer, pigment co-dispersant and neutralizer in a wide range of consumer and industrial applications, including:

- Architectural coatings
- Industrial and automotive coatings
- Epoxies, polyurethanes and other reactive chemistries
- Adhesives and sealants
- Building and construction
- Pigment slurries, dispersions and colorants
- Resins and emulsion polymerization
- Inks and overprint varnish
- Chemical manufacturing and synthesis



### Best-in-class multifunctional performance

Fig. 1: Performance comparison of waterborne architectural paints formulated with OPTIMINE, AMP and NaOH.

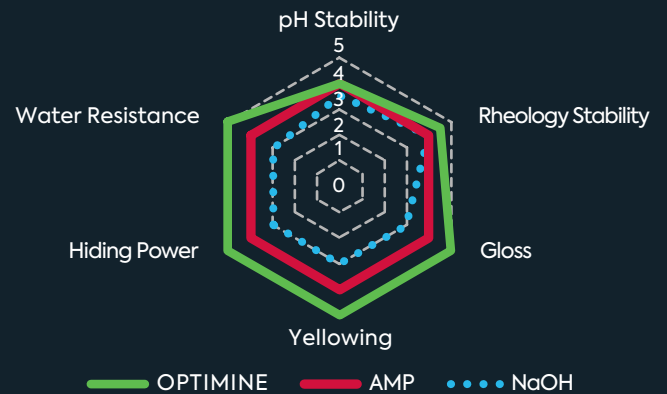
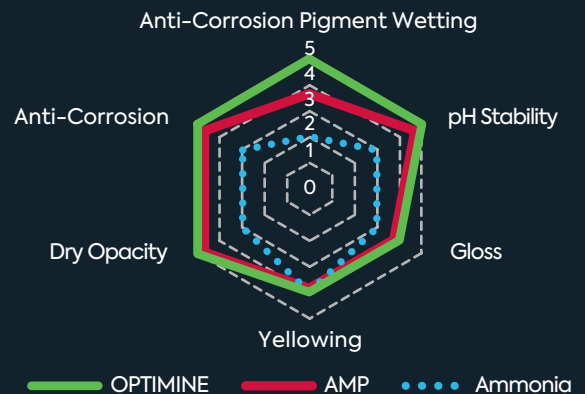
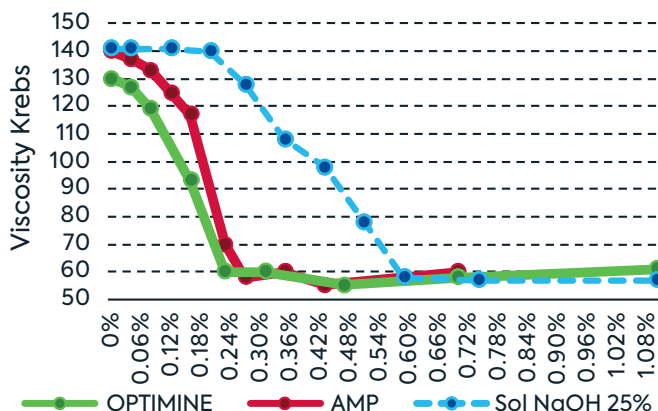


Fig. 2: Performance comparison of waterborne metal coatings formulated with OPTIMINE, AMP and ammonia.



## Exceptional co-dispersion of TiO<sub>2</sub>, organic pigments and anti-corrosion pigments

Fig. 3: Dispersant demand curve of KRONOS\* 2190 with OROTAN\* 731 in presence of 0.05 wt% of amino alcohols.

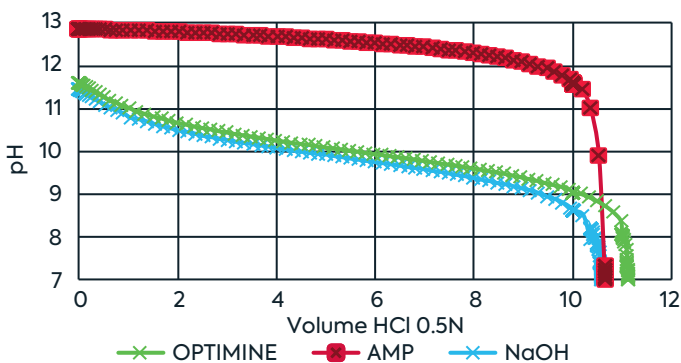


OPTIMINE is the first standalone amino alcohol additive with improved co-dispersion performance versus AMP. This functionality enables formulators to optimize TiO<sub>2</sub> loading levels while reducing use of other ingredients, such as primary dispersants, to reduce overall formulation costs.

The use of OPTIMINE has demonstrated the potential to reduce loading levels of primary dispersants up to ~40%, depending on the individual formulation.

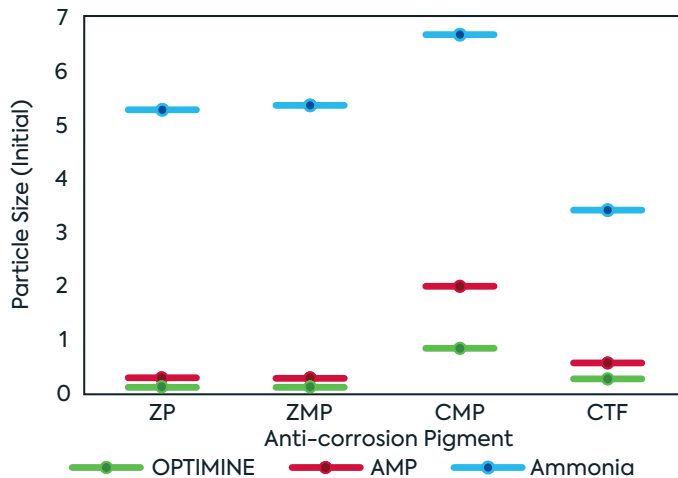
## Excellent pH stabilization

Fig. 5: Comparison of titration curves for OPTIMINE, AMP and NaOH.



OPTIMINE provides high-efficiency neutralization performance at equivalent molar dosage levels compared to AMP.

Fig. 4: Particle Size (µm) analysis of zinc phosphate (ZP), zinc molybdenum orthophosphate (ZMP), calcium magnesium orthophosphate (CMP), and calcium modified silica gel (CTF) anti-corrosion pigment slurries with OPTIMINE versus AMP and ammonia.



Like other Advancion amino alcohols, OPTIMINE provides outstanding wetting of commonly used anti-corrosion pigments, leading to improved hiding, gloss and corrosion resistance in waterborne metal coatings.

## Product registration status

- REACH registered 1–10 MT, registration for higher volume bands in progress
- Registered in China <10 MT, registration for >10 MT in progress
- USA EPA PMN and Canada NSN registration in progress, targeted for completion in 2025
- Registrations for other key geographies in progress, other use-related regulatory registrations will be initiated based on market demand (e.g., FDA FCN, BgVV, Swiss Ordinance, etc.)

OPTIMINE is commercially available for sampling, evaluation and commercial sale in different concentrations, including OPTIMINE™ REGULAR (anhydrous), OPTIMINE™ 95 (5% water), OPTIMINE™ 90 (10% water), and OPTIMINE™ 75 (25% water).

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