



'Green' Defoamer for Water-based Systems

AGITAN® 352

*Combination of Vegetable Oil, Alkoxylated Compounds,
Silica and Emulsifiers (100% actives)*

APPLICATIONS

- Architectural Coatings
- Paper Coatings
- Industrial & Wood Coatings
- Overprint Varnish (OPV)
- Adhesives
- Polymerization

FEATURES

- Mineral oil- and silicone-free with 50% bio-based content
- High efficiency
- Excellent stability
- Suitable over a broad pH range (between 3 and 11)
- Broad FDA and BfR regulatory clearances



Creating Additive Value

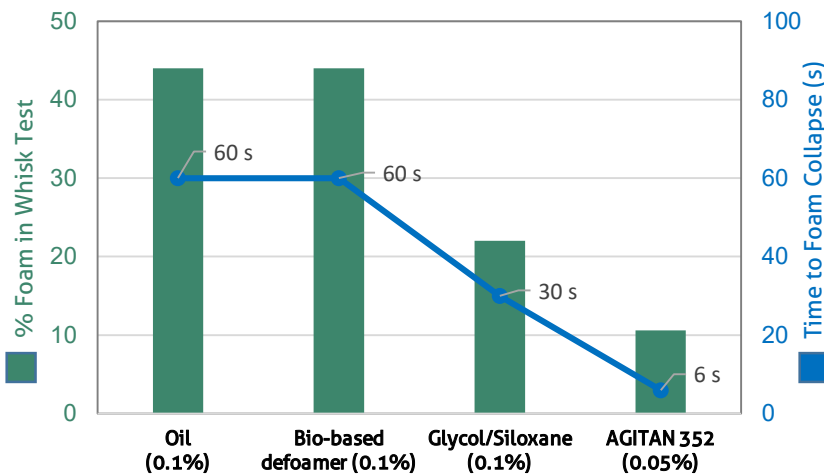


Architectural Coating

High Gloss Acrylic Trim	24-Hr Stability	% Foam	Roller Application 10 = no foam
Blank	homogeneous	28	1
Competitor	homogeneous	14	7
Oil based	slight oil drops	16	4
Glycol based	homogeneous	10	4
AGITAN 352	homogeneous	5	8

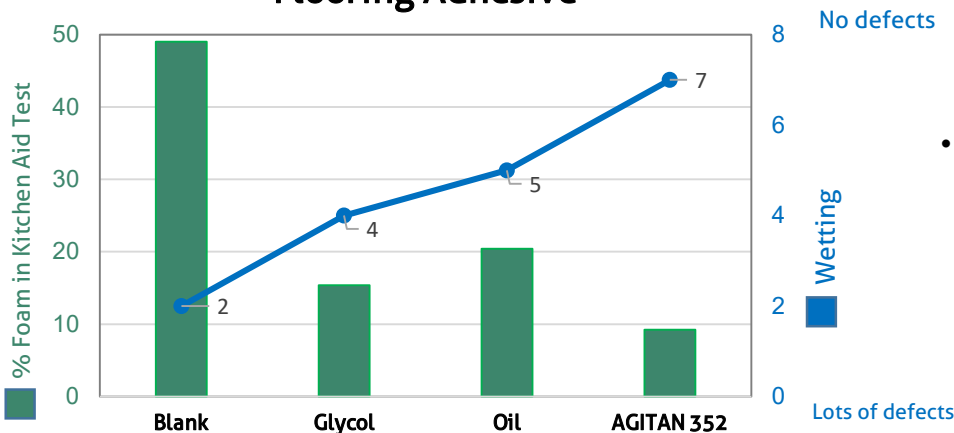
- Improved process foam control over typical defoamers
- Fast foam break during application
- No gloss reduction, good leveling and no surface defects
- Suitable for grind and let-down

Paper Coating



- Excellent foam control in low to high shear application
- Fast foam break prevents build up of foam
- Minimal wetting defects

Flooring Adhesive



- Minimal wetting defects vs. other defoamers while maintaining good foam control



Creating Additive Value



Polymeric Dispersants for Aqueous Systems

EDAPLAN[®] 490, 492, 494

FEATURES

- Universal use for organic, inorganic, carbon black pigments and fillers
- High gloss and color strength development
- Excellent pigment stabilization with no flocculation or rub-out issues
- No negative influence on water resistance or film hardness and no foam
- Reduction of grind viscosity to allow high pigment concentration
- Broad compatibility with various binders

	EDAPLAN [®] 490	EDAPLAN [®] 492	EDAPLAN [®] 494
Copolymer structure	Non-ionic, high molecular weight, branched		Anionic, high molecular weight, branched
Active content	40% in water	35% in water	50% in water
pH	7.5	8.5	8.5
Viscosity, mPa.s	1000	200	250
VOC (EPA, Method 24)	0	0	< 1%
Suitable Pigments	<ul style="list-style-type: none"> • Organic • Carbon black • Inorganic • TiO₂ 	<ul style="list-style-type: none"> • Carbon black • Organic • Silica / matting • TiO₂ 	<ul style="list-style-type: none"> • Inorganic • TiO₂ • Organic • Carbon black • Transparent/ nanoscale • Alternate to grind resins

Creating Additive Value



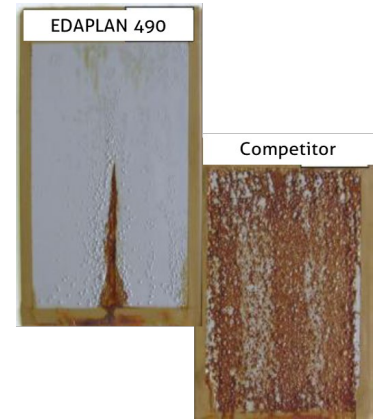
Exterior Paint

Dispersant @ 0.44%	Ease of pigment Incorporation	Viscosity in Krebs Units (KU) 25°C			Water Sensitivity Test
		Initial	1 week	4 weeks	
Competitor	Moderate	75.4	78.2	85.5	Yellowing, tacky
Polyacrylate	Difficult	72.1	Thick	Thick	Not tested
EDAPLAN® 494	Easy	81	83.6	84.2	Good

Excellent long-term stability in all types of coatings (architectural, roof, industrial, etc.)

Improved water resistance

White Anti-corrosion Primer

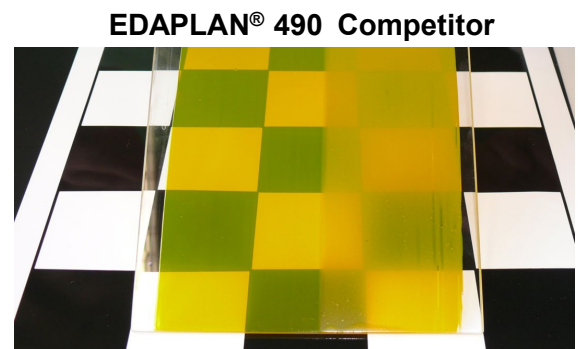


Improved corrosion resistance in salt spray test

Organic Pigments

EDAPLAN® 490	Competitor		
PV 23 (30% loading)	Competitor 1	Competitor 2	EDAPLAN 490
	65% Dispersant on Pigment		
Appearance of Dispersion	Water-Like	Low Viscosity	Water-Like
Color Strength in Wall Paint	100%	77%	108%

Increase in color strength and better stability using EDAPLAN® 490



Improved transparency and homogeneity in PY-83 dispersion in a printing ink



Creating Additive Value



Universal Dispersing and Wetting Agent

EDAPLAN® 918

High molecular weight copolymer with pigment affinic groups

FEATURES

- Designed to disperse organic, inorganic and carbon black pigments
- For universal use in water- and solvent-based systems as well as high solids
- Excellent stabilization with improved resistance to flocculation
- High gloss and color strength
- Good pigment wetting properties (no additional wetting agent required)
- Solvent-free with 100% active

Suitable Applications	Water based	Solvent based	Universal use	100% UV	High-solid	Organic Pigments	Inorganic Pigments	Carbon Blacks
EDAPLAN® 490	●●					●●	●●	●●
EDAPLAN® 494	●●					●●	●●	●●
EDAPLAN® 918	●	●●	●●	●●	●●	●●	●	●●



Primary recommendation



Secondary recommendation

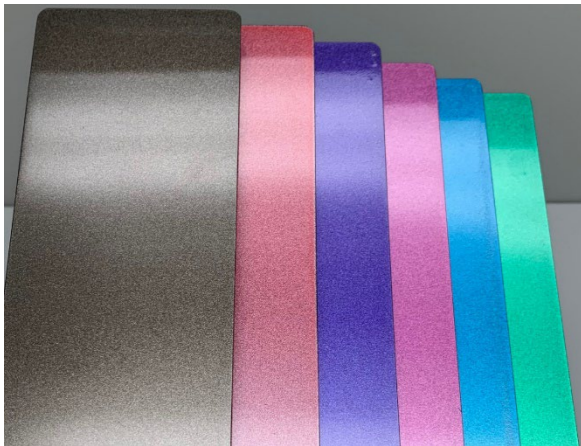


Creating Additive Value



	Test	PB 15:1	PG 7	PR 122	PR 254	PO 36	PO 73	PY 155	PV 23	PBk 7
Water-based	Color strength	●	●	●	●	●	●	●	●	●
	Rub-out	●	●	●	●	●	●	●	●	●
Solvent-based	Color strength	●	●	●	●	●	●	●	●	●
	Rub-out	●	●	●	●	●	●	●	●	●

- High color strength and stabilization (rub-outs) achieved in water- and solvent-based formulations made from *various universal pigment concentrates* using EDAPLAN 918
- Primary recommendation was EDAPLAN 397



Aluminum pigment, organic pigments in combination with C-black in water borne metallic automotive coating. Excellent stabilization achieved using EDAPLAN 918 and LUBA-print 725.



Improved resistance to flocculation in PR 254 in solvent-based alkyd.



Creating Additive Value



Additive for Graffiti Resistance and an Easy-to-Clean Surface

METOLAT® ETC 1

*Siloxane modified acrylate
(Hydroxyl functional, 32% actives in MPA)*

APPLICATIONS (Solvent-based Coatings)

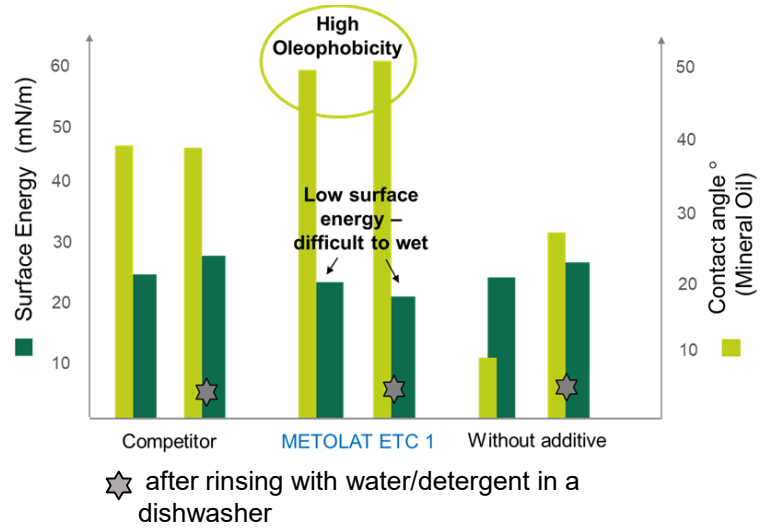
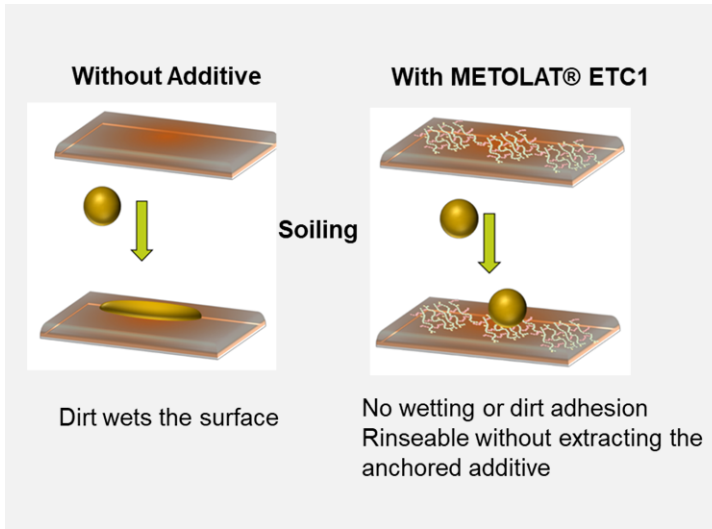
- Topcoats, clear lacquers
- Industrial coatings
- Wood varnish

FEATURES

- Improves water, oil and contaminant resistance
- Anti-graffiti properties demonstrated through strong marker resistance and reduced spray paint adhesion
- Provides easy to clean surface
- In suitable 2K systems (e.g., acrylate/isocyanate), it can crosslink and remain permanently anchored to the surface for durability
- Enhanced slip and tape release
- No turbidity in clear coats



Creating Additive Value



- METOLAT® ETC 1 significantly lowers the surface energy of the coating.
- This prevents contaminants from wetting or adhering to the surface.

- Low surface energy and high oil resistance (oleophobicity) achieved using METOLAT® ETC 1.
- After several cleaning cycles, properties are preserved (no drop in values before and after).

