

HIGH SOLIDS ALKYDS FOR DECK STAINS

SETAL® 21-3610 & 21-3670



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Decks

A Source of Pride or a Source of Pain



...So it's critical that you choose a deck stain or sealer that lasts.

Acrylic Emulsion, Alkyd Dispersion, or High Solids Solventborne Alkyd?

WB ACRYLIC EMULSIONS →

- Low VOC, fast dry, low odor, and easy clean-up
- *Failure Mode: Flakes & Cracks (objectionable appearance)*

HYBRID ALKYD DISPERSIONS

- Alkyd chemistry improves substrate wetting and penetration
- Acrylic modification improves UV resistance
- Urethane modification improves flexibility

HIGH SOLIDS, SOLVENTBORNE ALKYDS →

- Longer open time for application
- Wets substrate, penetrates deeply giving excellent adhesion
- High Bio-Renewable Content
- Pro: Ages gracefully by erosion rather than flaking (*more acceptable*)
- Con: Generally higher VOC than the two waterborne options



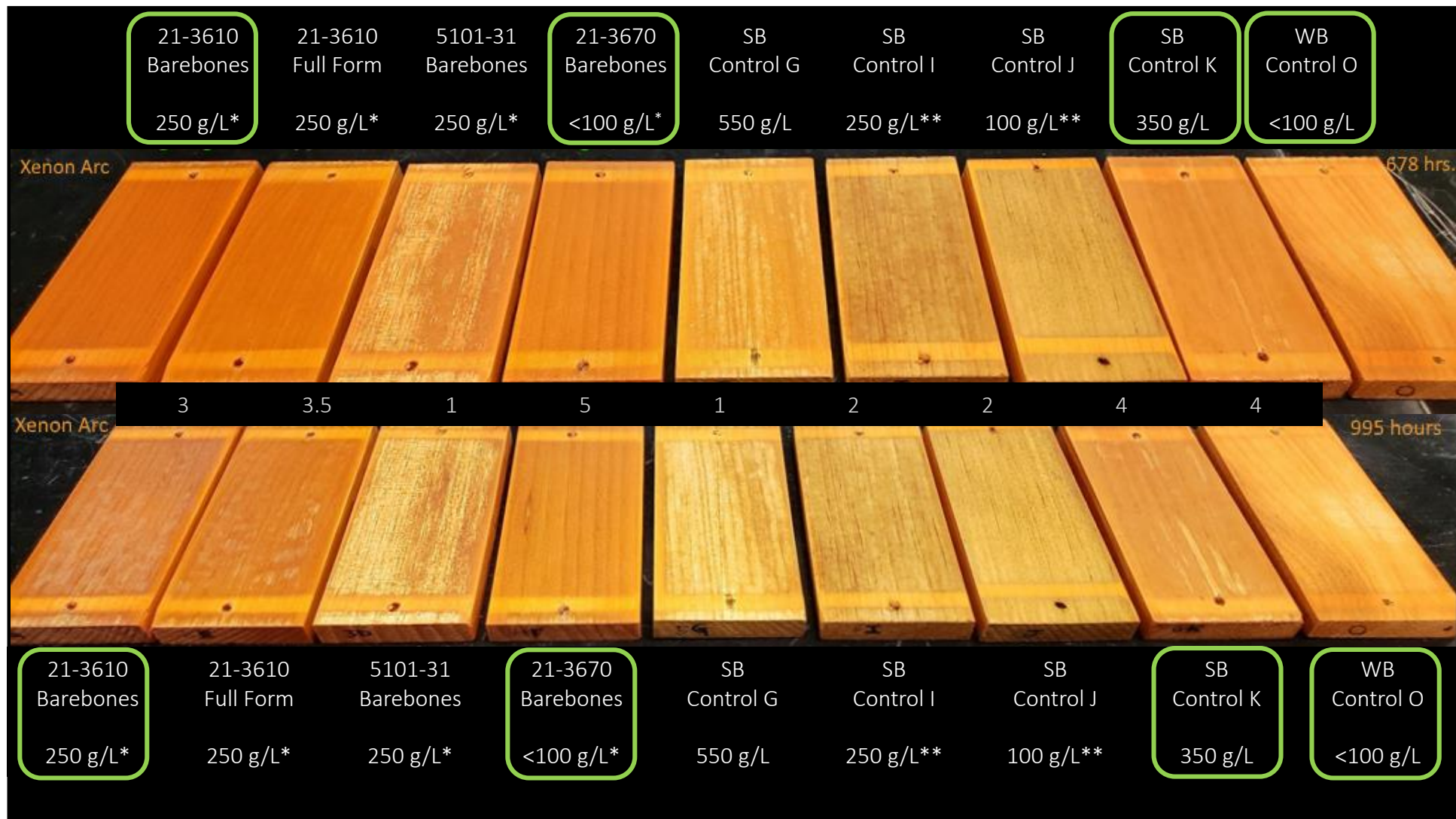
What if there was a high solids alkyd that had a low VOC, high bio-renewable content, and a longer life cycle than hybrid alkyd dispersions?

SETAL® 21-3610 & 21-3670 HS Alkyd Deck Stains

Xenon Exposure at 675 and 1000 hours (ASTM D7869)

675 hours exposure

1000 hours exposure



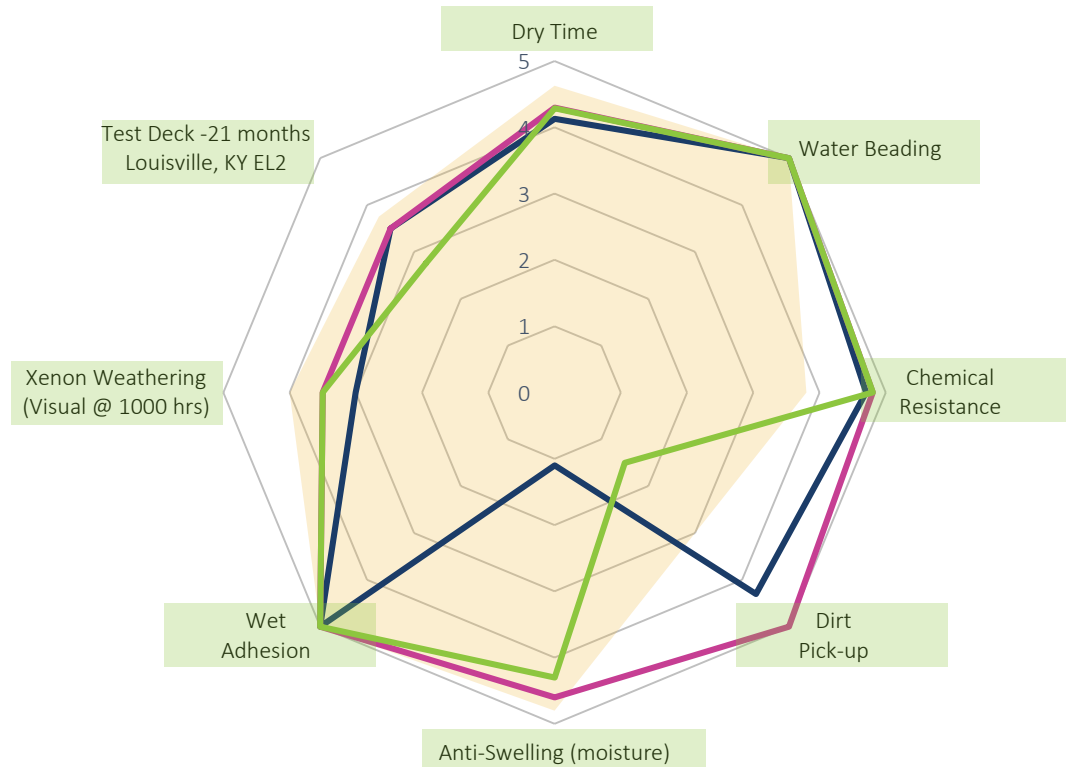
* Contains Exempt Solvent – DMC
 ** Contains Exempt Solvent – Oxsol 100

Note: "Barebones" Formulas contain no UV package or wax

SETAL® 21-3610 & 21-3670 HS Alkyd Deck Stains

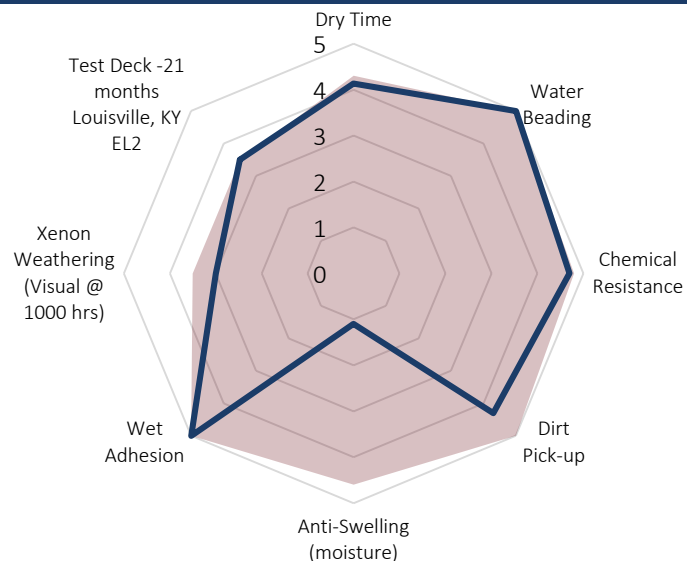
SETAL 21-3610 - 97% solids, long oil with >70% Bio-Renewable Content

SETAL 21-3670 - hydrophobically modified version of 21-3610

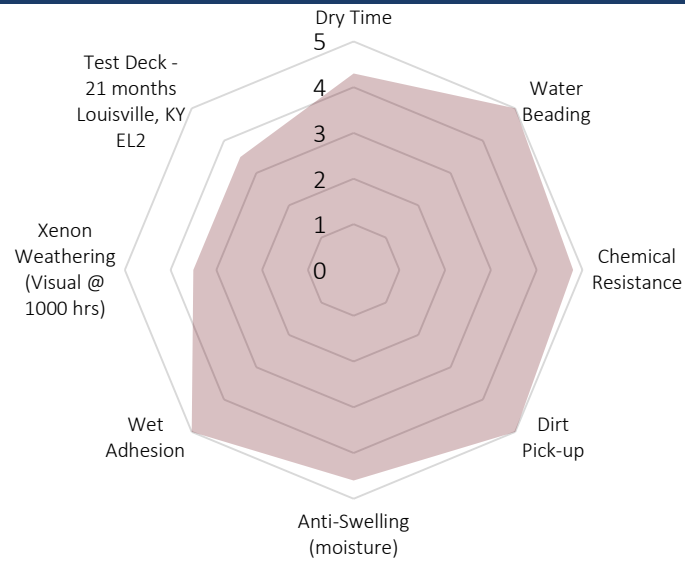


- Even without wax or a UV package, Setal 21-3610 (250 g/L) challenges the performance of the best commercial SB Product (350 g/L).
- Addition of wax and a UV package:
 - Greatly improves moisture resistance
 - Improves dirt resistance
 - Improves Xenon weathering slightly
- Setal 21-3670 (250 g/L) shows significantly better moisture resistance than 21-3610 even without the addition of waxes.

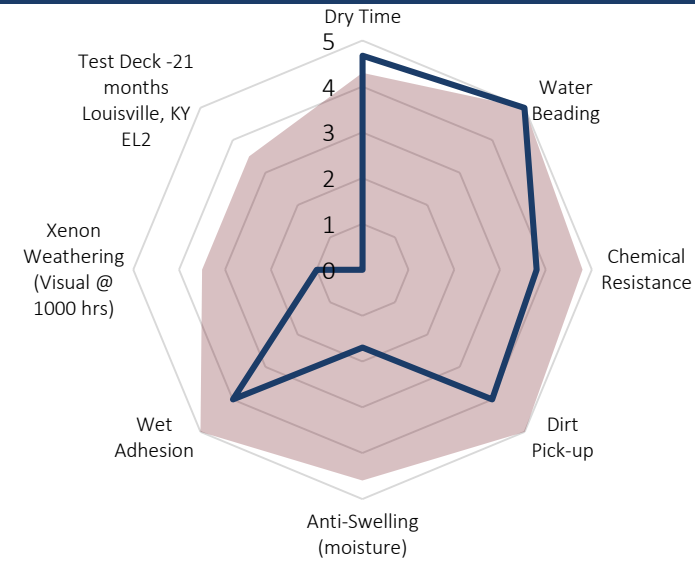
SETAL® 21-3610 HS Alkyd Deck Stains Performance at 250 g/L VOC



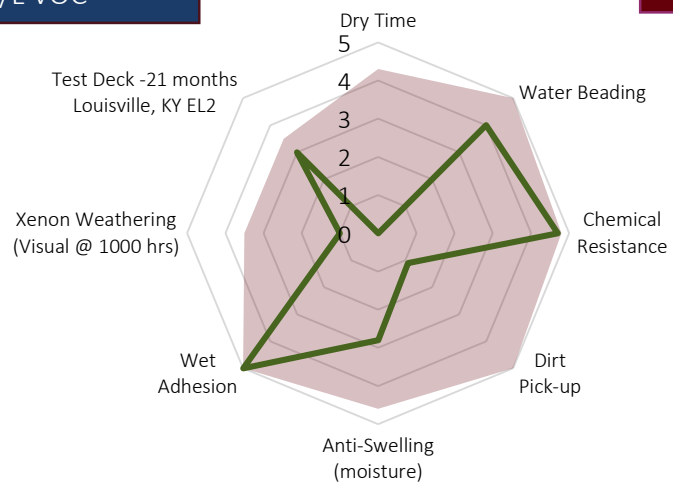
(A) 21-3610 BB
250 g/L VOC



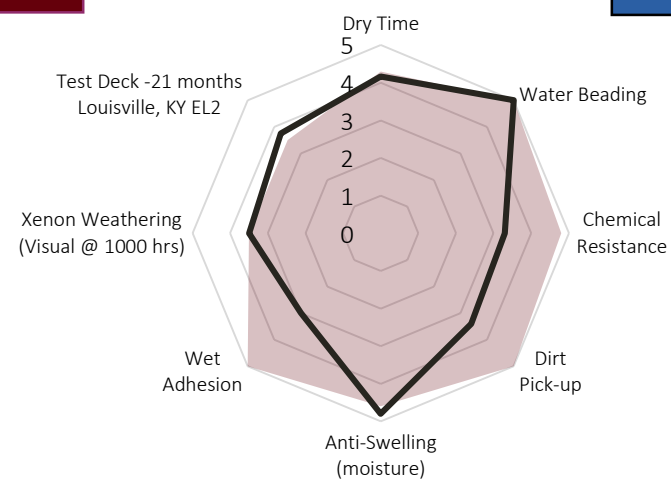
(B) 21-3610 FF
250 g/L VOC



(M) Commercial Control
250 g/L VOC



(I) Commercial Control
250 g/L VOC

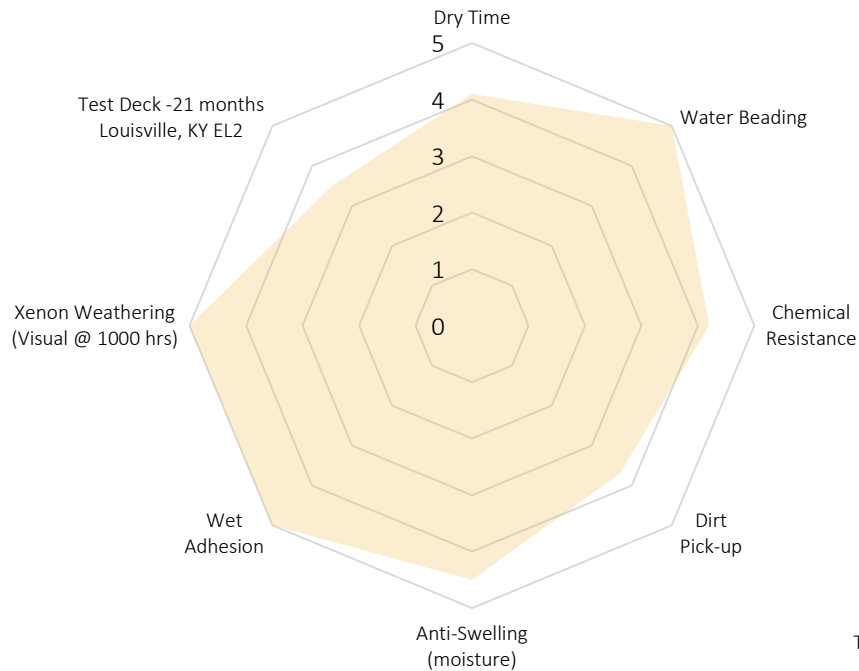


Commercial Control
(N) 250 g/L VOC

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SETAL® 21-3670 (Hydrophobically Modified) HS Alkyd Deck Stain Performance at 100 g/L VOC

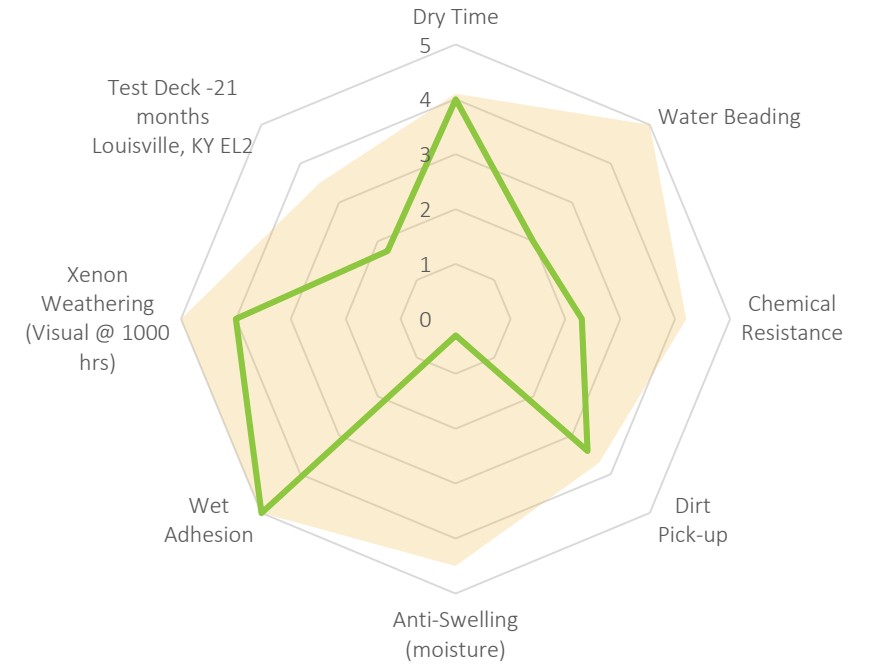
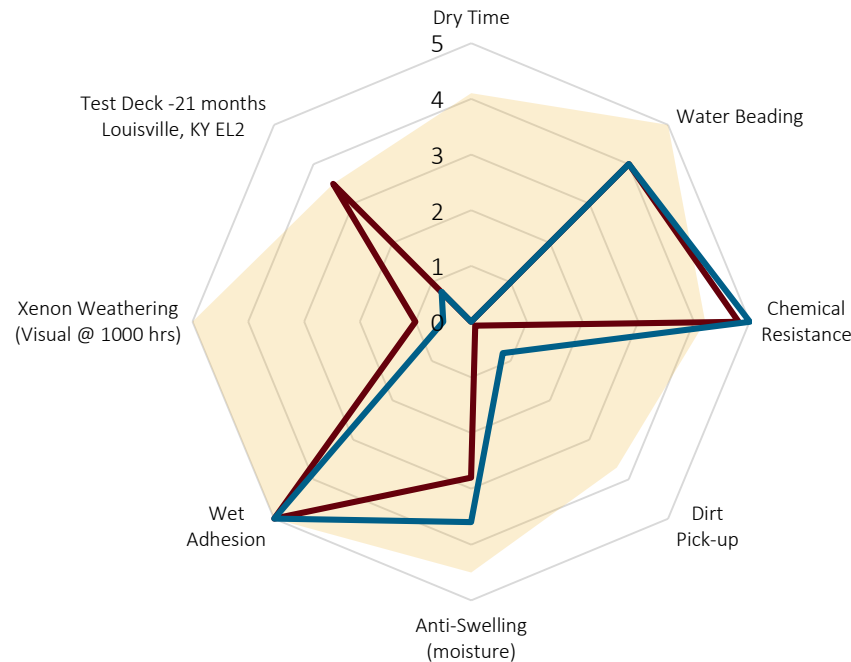


**Setal 21-3670 BB
SB <100 g/L VOC**

- No wax or UV Package

**SB Commercial Controls (J & L)
<100 g/L VOC**

- Poor Dry Time
- Poor Dirt Pick-up resistance



**WB Commercial Control (O)
<100 g/L VOC
Acrylic Modified Alkyd Dispersion**

- Poor Chemical Resistance
- Poor Water Beading
- Poor Durability

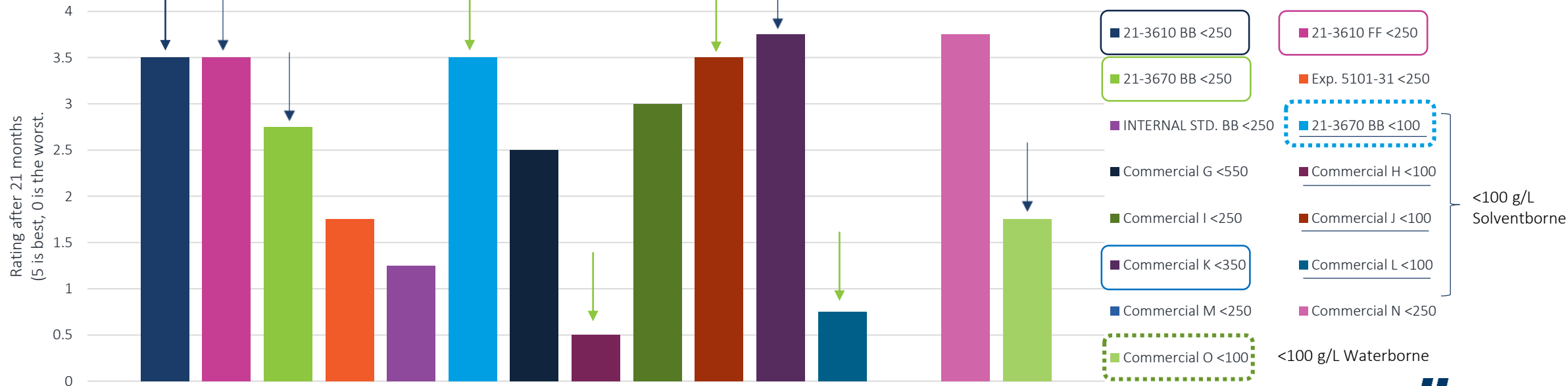
EL2 Pressure Treated Southern Yellow Pine 21 months

EL2
(Ecolife)



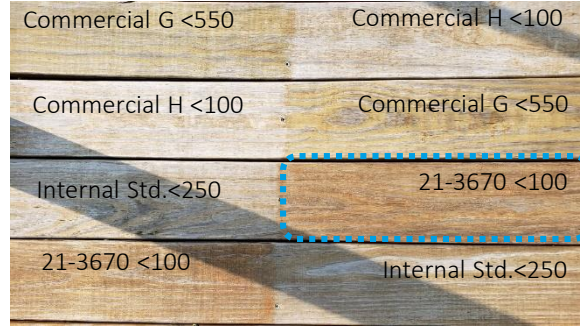
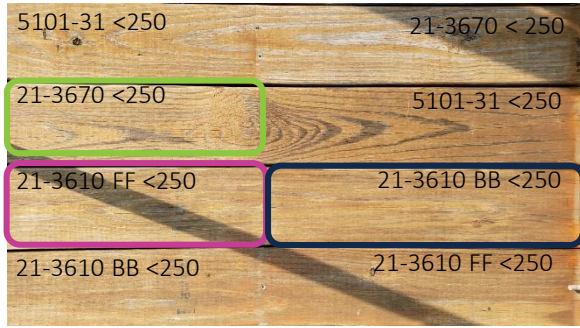
Click product description above to enlarge.

Performance Ratings at 21 Months Exposure



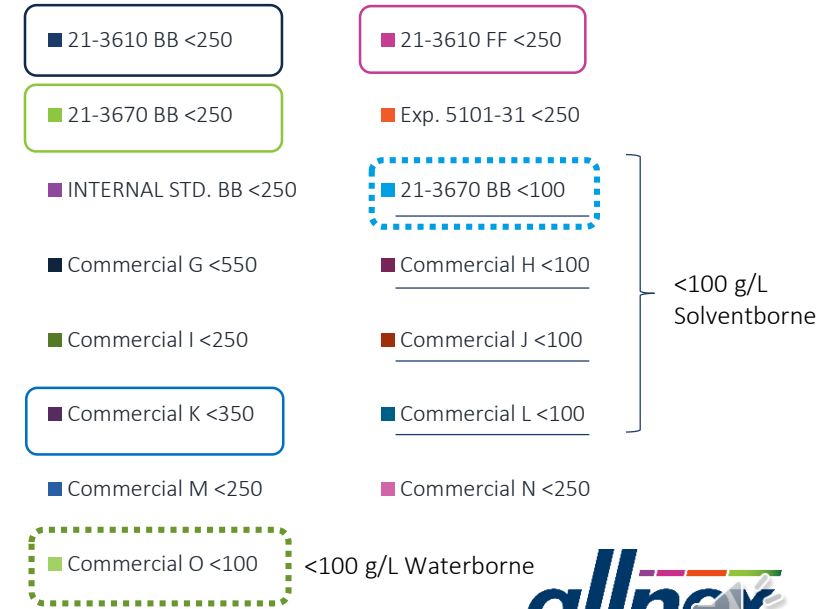
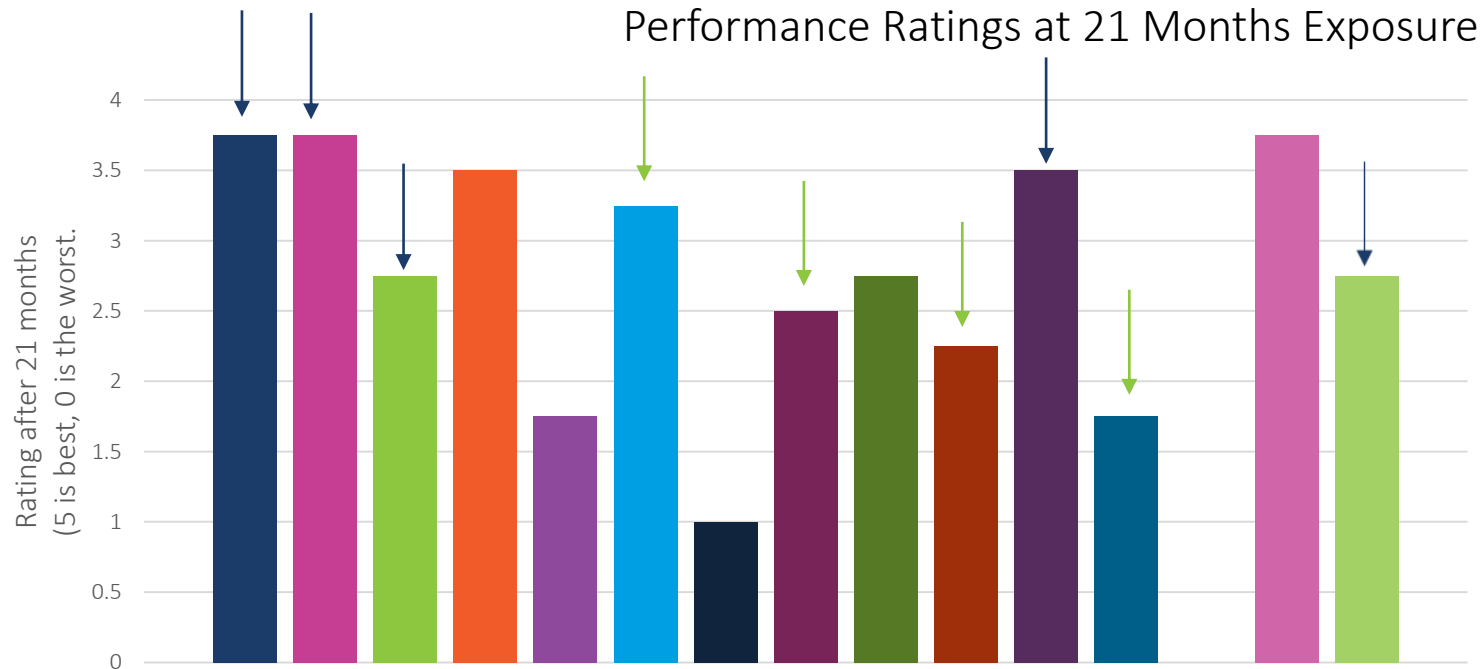
MCA Pressure Treated Southern Yellow Pine 21 months

MCA
(Micronized Copper Azole)



Click product description above to enlarge.

MCA
(Micronized Copper Azole)



SETAL® 21-3610 and 21-3670

Overview and Value Proposition

SETAL 21-3610 is a new high solids, long oil alkyd with >70% biobased content*. It is designed to give traditional oil based penetration and wear in 100 or 250 g/L VOC formulations.

SETAL 21-3670 is a *hydrophobically modified* version of 21-3610 with >65% biobased content*.

Value Proposition

- Exceptional penetration
- Traditional alkyd performance
- Ages gracefully
- Wears evenly – no flaking
- Easy care and maintenance
- High Bio-Renewable Content

Target Applications

- Wood decks and boardwalks
- Log homes
- Privacy fences
- Arbors and trellises
- Piers and beams
- Exterior wood furniture

Physical Constants

| | <u>SETAL 21-3610</u> | <u>SETAL 21-3670</u> |
|------------------------------|----------------------|----------------------|
| • Solids Content: | 97.0 % | 97.0 % |
| • Solvent: | Mineral Spirits | Mineral Spirits |
| • Viscosity as Supplied: | Y-Z1 Gardner Holdt | W-Z1 |
| • Reduced Visc. (90% in MS): | U-X Gardner Holdt | S-V Garner Holdt |
| • Acid Value (on solids): | 10 max. | 10 max. |
| • Color (Gardner): | 10 max. | 10 max. |
| • Density (lbs./gal): | 8.24 | 8.50 |
| • Flash Point: | 104°F | 104°F |
| • TSCA: | Approved | |
| • CEPA: | Approved | |



* Biobased content certified by BETA Analytic, Inc. Certificate available upon request.

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Starting Point Formulas

| Formula Reference # | Resin | Description |
|-------------------------|------------------|--|
| #4596-1 | SETAL 21-3610 | 250 g/L Cobalt-Free HS Alkyd Deck Stain With DMC and Additol Dry CF100 |
| #4527-52 | SETAL 21-3610 | 100 g/L Cobalt-Free HS Alkyd Deck Stain With DMC, Additol Dry CF 100, and Additol Dry CF 300 |
| #4596-1G (908-36) v3 | SETAL 21-3670 | 100 g/L Cobalt-Free HS Modified Alkyd Deck Stain With DMC and Additol Dry CF 100 |



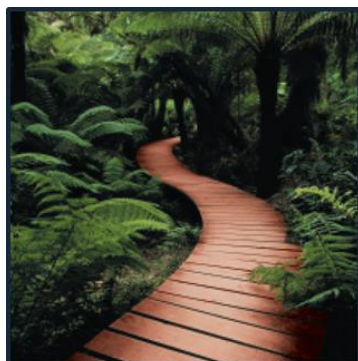
Setal 21-3610 and 21-3670

Part of our Full Range of Products for Deck and Exterior Applications



SETAL® 21-3610
HS Alkyd (97% NVW)
Exterior Wood Surfaces
Fence, Deck, & Log Homes

100 g/L High Solids SB



RESYDROL® AY 586
Hybrid Alkyd Dispersion
Exterior Wood Stains and
Sealers

*Industry Standard WB
Acrylic Alkyd Dispersion*



RESYDROL® AZ 6710
Hybrid Alkyd Dispersion
Exterior Wood Stains
(Full Launch Pack)

*Best Performance WB
Urethane Acrylic Alkyd*



SETAQUA® 6799
**Self-Crosslinking Acrylic
Emulsion**
Interior/Exterior Wood
Deco & Joinery

WB Acrylic Technology

Alkyd Nature



Acrylic Nature



RESYDROL VAL 5547W
Modifier for improving
open time and wet edge

How may we help you?

Resin samples, SPF's, formulated samples for test fence evaluation?

Additive and modifier recommendations?

RESYDROL VAL 5547 - modifier to extend open time for maintaining wet edge

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PREMIUM RESINS FOR DECK STAINS

THANK YOU FOR YOUR ATTENTION!



ANY QUESTIONS?

Contact your allnex Sales or TSBD Representative



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The Coating Resins Company

Southern Yellow Pine – Ecolife (EL2) 21 months- Louisville, KY



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Southern Yellow Pine – Ecolife (MCA) 21 months- Louisville, KY



Southern Yellow Pine – Ecolife (EL2) 21 months- Louisville, KY

SETAL® 21-3610 FF <250 SETAL® 21-3610 BB <250

SETAL® 21-3610 BB <250 SETAL® 21-3610 FF <250

Commercial H <100 g/L Commercial G <550 g/L

Commercial G <550 g/L Commercial H <100 g/L

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Southern Yellow Pine – Ecolife (MCA) 21 months- Louisville, KY



Southern Yellow Pine – Ecolife (EL2) 21 months- Louisville, KY

SETAL® 21-3610 FF <250 SETAL® 21-3610 BB <250

SETAL® 21-3610 BB <250 SETAL® 21-3610 FF <250

SETAL® 21-3670 <100 Internal Std.<250

Internal
Std.<250 SETAL® 21-3670 <100

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Southern Yellow Pine – Ecolife (MCA) 21 months- Louisville, KY



Southern Yellow Pine – Ecolife (EL2) 21 months - Louisville, KY



Southern Yellow Pine – Ecolife (MCA) 21 months - Louisville, KY



Southern Yellow Pine – Ecolife (EL2) 21 months- Louisville, KY



Southern Yellow Pine – Ecolife (MCA) 21 months- Louisville, KY



Southern Yellow Pine – Ecolife (EL2) 21 months- Louisville, KY



SETAL® 21-3610 FF <250 SETAL® 21-3610 BB <250

SETAL® 21-3610 BB <250 SETAL® 21-3610 FF <250

Commercial J <100 Commercial I <250

Commercial I <250 Commercial J <100

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Southern Yellow Pine – Ecolife (MCA) 21 months- Louisville, KY



[Return](#) 

Southern Yellow Pine – Ecolife (EL2) 21 months- Louisville, KY



[Return](#) 

Southern Yellow Pine – Ecolife (MCA) 21 months- Louisville, KY

