



RayVace 692 Technical Bulletin

Vinyl Acrylic/Vinyl Versatate Terpolymer

RayVace 692 is a polyvinyl acrylic emulsion enhanced with vinyl versatate creating a highly branched polymer which exhibits excellent water and alkali resistance. Coatings formulated with RayVace 692 offer a good balance of exterior durability and economics.

Key Features

- Outstanding adhesion to concrete
- Excellent alkali and efflorescence resistance
- Very good UV resistance
- Low VOC and APEO free

RayVace 692 Typical Physical Properties*

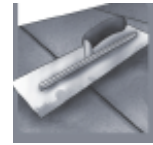
Polymer type	Polyvinyl acrylic/vinyl versatate
Weight solids	54.5%
Viscosity (Brookfield Model RVT)	220 cps, #2/100 rpm
pH	5.2
Tg (DSC)	18°C
MFFT (ASTM D-2354)	5°C
Particle size (Mean)	0.18 micron
Surfactant charge	Anionic/Nonionic
Weight per gallon	8.6 lbs/gal
Freeze thaw stability	Do not freeze

** These properties are typical, but do not constitute specifications*

For 50 years Specialty Polymers has been developing state of the art resins for the paint, coatings and adhesive industries. With more than 300 products to choose from, Specialty Polymers has the right polymer to meet your needs.

IMPORTANT INFORMATION

If any product is defective in workmanship or materials, Specialty Polymers, Inc. will replace the product. The information contained in this Technical Bulletin is intended to be a guideline. It is offered in good faith, but without guarantee. We recommend users of the product perform their own testing to determine the suitability of the product in their application.



Comparative Testing

RayVace 692 was compared to a competitor alkali-resistant polymer in a flat white base masonry paint in addition to two commercial paints -- a masonry, stucco and brick paint (commercial product A), and a 100% acrylic exterior paint recommended for various substrates including masonry and concrete (commercial product B).

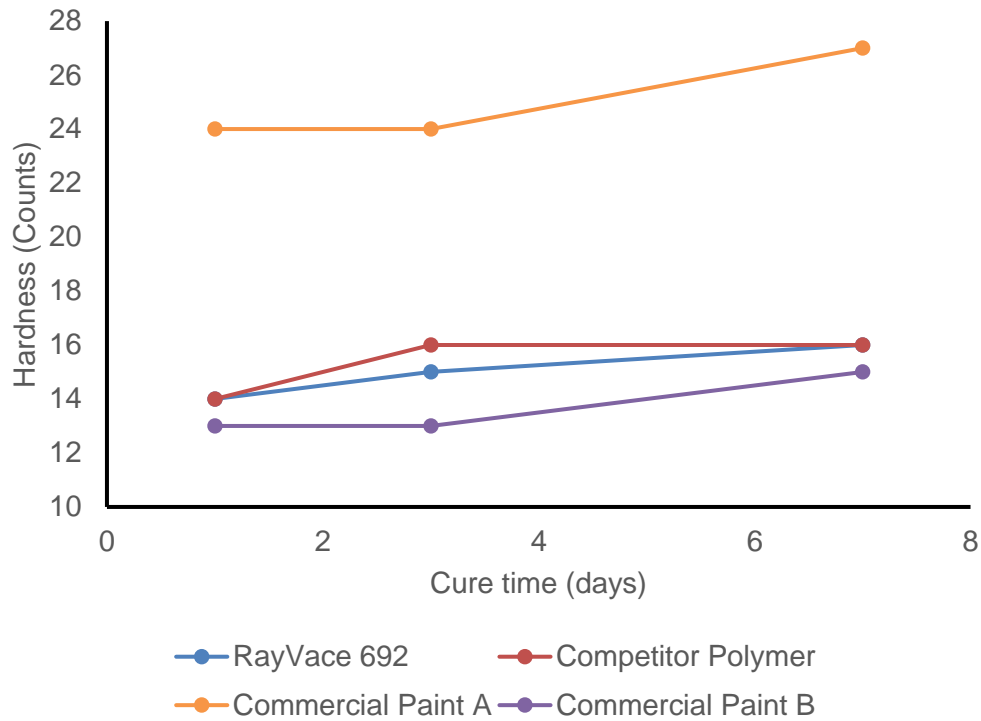
Film Properties and Performance Testing

	RayVace 692	Competitor Polymer	Commercial Paint A	Commercial Paint B
Contrast Ratio, 3 mil drawdown				
	0.993	0.997	0.989	0.987
Specular Gloss ASTM D523				
60° Gloss	2.1	2.1	2.2	2.6
85° Gloss	1.6	1.7	2.2	4.6
Early Water Resistance, ASTM D714 blister rating after 30-minute surface exposure to water after stated cure time.				
2 hours	10	10	6 MD; film softened	10; film softened
4 hours	10	10	10; film degradation	10; film softened
6 hours	10	10	10; film softened	10
24 hours	10	10	10	10
Block Resistance, ASTM D4946, 6 mil wet film, cured at room temperature for specified time then tested 30 minutes at room and elevated temperature				
24 hour cure, RT	10	10	10	9
24 hour cure 50°C	9	9	10	8
7 day cure, RT	10	10	10	10
7 day cure 50°C	9	9	10	8

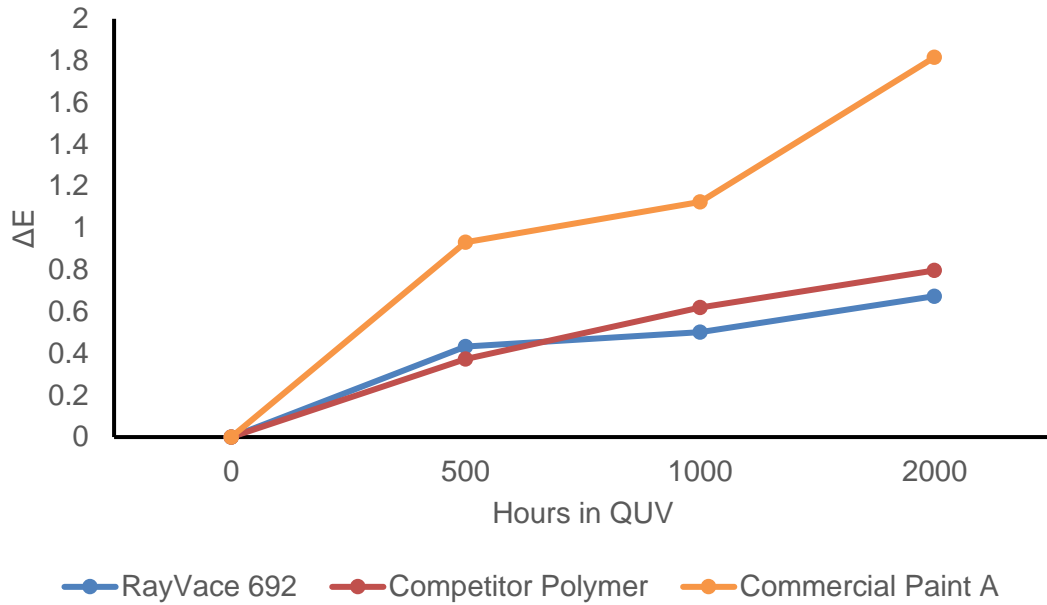
	RayVace 692	Competitor Polymer	Commercial Paint A	Commercial Paint B
Crosshatch Adhesion by Tape, ASTM 3359, Concrete, Method B				
Wet samples exposed to surface moisture for 30 minutes prior to adhesion testing				
24 hours cure, dry	5	5	4	2
24 hours cure, wet	3	5	1	0
7 days cure, dry	4	5	5	4
7 days cure, wet	5	2	1	0

König Pendulum Hardness

ASTM D4366, 6 mil wet film on aluminum panels, cured at room temperature

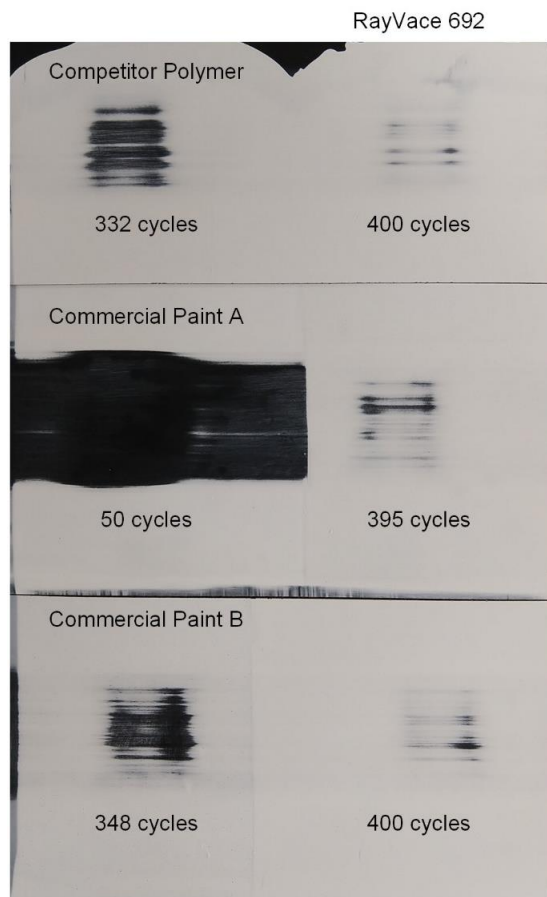


Color Retention in QUV - Accelerated Weathering



Scrub Resistance, ASTM 2486

Images captured after 400 cycles, cycles to failure reported



Alkali Leaching Resistance

Paint samples tinted with pH sensitive pigment are applied over green concrete and then exposed in a water bath under a heat lamp to draw alkaline material to the surface of the concrete block. If the paints allow this alkalinity to pass through, the color will change from red-orange to yellow.

Image captured after 32 hours exposure, change reported as ΔE .

