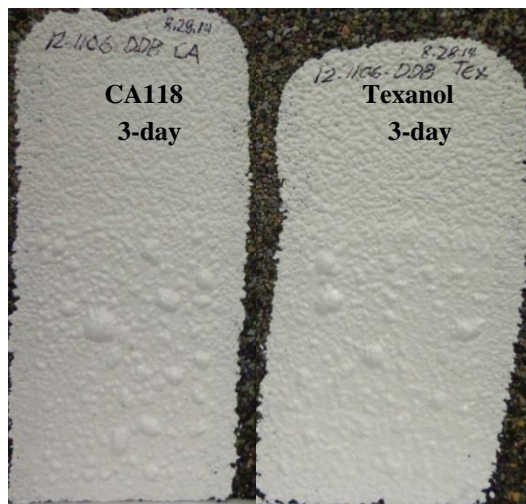


## ACS Epoxol™ CA 118 provides improved Dirt Pick-Up and Water Resistance in Semi-Elastomeric Masonry Coating

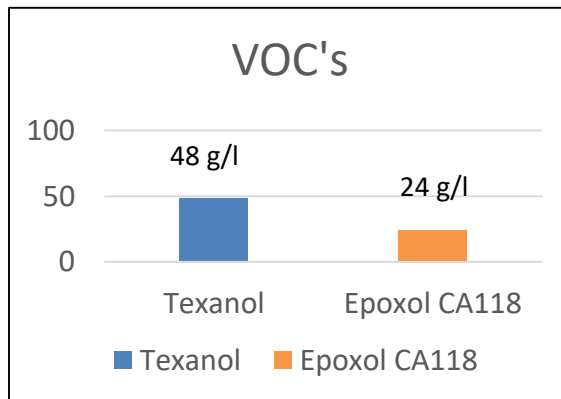
ACS Epoxol™ CA118 was evaluated in a semi-elastomeric masonry coating as a 100% replacement for a traditional high VOC fugitive coalescent. Test results showed improved resistance to water swelling and Dirt Pick-Up resistance.

**Table 1. Formulation Semi-Elastomeric Masonry Coating**

SEMI-ELASTOMERIC MASONRY COATING MODEL FORMULATION CST AE-960 (<50 g/l Formulation))					
Material	Pounds	Gallons	Kilograms	Liters	Use
Charge emulsion to letdown tank:					
<i>Carboset AE960</i>	482.0	66.70	218.6	214.7	Elastomeric Latex
Water	55.0	6.60	25.0	25.0	*****
DrewPlus® L-475	3.0	0.39	1.40	1.5	Defoamer
In a separate tank, high speed					
disperse the following items to a 7+ Hegman					
Water	120.0	14.65	54.6	54.5	*****
Ethylene Glycol	10.0	1.09	4.5	4.0	Cosolvent
Natrosol® 250 MBR	1.5	0.14	0.7	0.5	Rheology Modifier
Tamol® 850	10.0	1.09	4.5	4.3	Dispersant
Triton® CF10	6.0	0.72	2.7	2.5	Surfactant
Drew Plus® L-475	2.0	0.26	0.9	1.0	Defoamer
Aclicide® MBS	2.0	0.21	0.9	0.9	In-Can Preservative
DuPont® R706	100.0	3.00	45.4	11.4	White Pigment
Optiwhite®	100.0	4.70	45.4	17.6	Pigment
Imstil® A15	80.0	3.62	36.3	13.7	Pigment
Atomite™	60.0	2.76	27.2	10.5	Pigment
Texanol®	10.0	1.26	4.5	4.8	Cosolvent
Water	5.5	0.66	2.5	2.5	
Pump grind to letdown tank, adding to emulsion with moderate agitation.					
Add the next two items with good agitation:					
Water	5.0	0.60	2.3	2.3	*****
DrewPlus® L475	4.0	0.53	1.8	2.0	Defoamer
Acrysol® RM8W	1.6	0.20	0.7	0.7	Rheology Modifier
Ammonia	2.0	0.22	0.9	0.8	pH Control
Add the next item with good agitation:					
0-VOC Film Preservative	6.0	0.60	2.7	0.60	Film Preservative
<b>Total</b>	<b>1065.6</b>	<b>100.0</b>	<b>483.5</b>	<b>375.8</b>	
* For interior use do not add film preservative.					
<b>Formula Constants:</b>		<b>Typical Properties:</b>			
Non-volatile (Wt. %)	58.8	Viscosity – Stormer, KU	105 -120		
Non-volatile (Vol. %)	47.3	Viscosity – ICI, poise	0.8 – 1.1		
Density, g/l	1.3	pH	8.8 – 9.2		
WT./Gal., lbs.	10.7				
VOC – g/liter	48.5				
VOC – lbs/gallon	0.4				
PVC, (%)	32.0				
Pigment to Binder Ratio	1.3				



**Fig 1. Blister Resistance – 12-1106-DDB**



**Fig. 2 Reduction of VOC's – 12-1106-DDB**

Epoxol™ CA 118 is an Ultra-Low VOC Bio-Based Coalescent that can help formulators meet regulatory requirements without compromising finished coating performance. If you are interested in learning more ACS products, please contact your ACS Representative.

**Conclusion:** Epoxol™ CA118 improved blister resistance and water swelling vs. Texanol in this elastomeric coating formulation.

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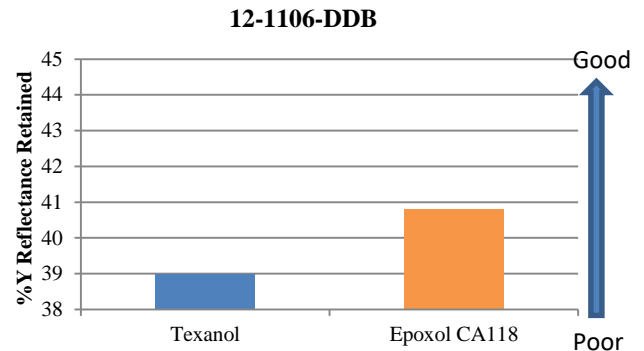
**ACS Epoxol™ CA 118 in Semi-Elastomeric Masonry Coating**

**Properties / Results**

**Table 2. Test Results / Property**

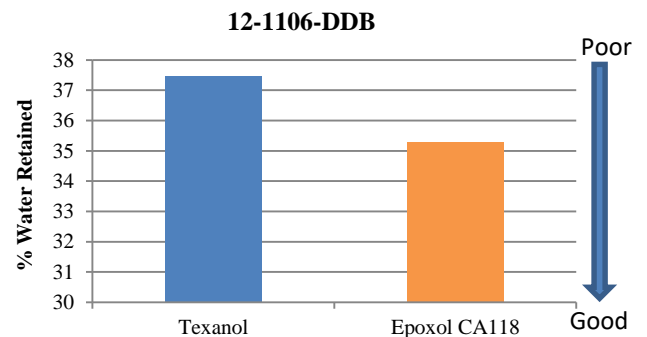
Test / Property	Texanol Formulation	Epoxol™ CA118 Formulation
Blister Resistance <sup>6</sup> 3-Day	#2 MDense	#2 MDense
Blister Resistance <sup>6</sup> Delamination	None	None
% Water Swelling <sup>3</sup>	37.48%	35.28%
Dirt Pick-Up Resistance <sup>8</sup> , %Y Reflect. Retained (Dow Meth)	39.0	40.8
Viscosity, KU,Initial	131.6 Ku	131.7 Ku
Heat Aged Stability, Viscosity Final Ku, 4 Weeks @140°F	138.6 Ku Stable	135.6 Stable
In-Can Condition after Aging	Clear yellow syneresis	Clear yellow syneresis
Height of Syneresis	5/16"	3/16"
pH	8.68	9.04
Gloss @ 60° / 85°	6.7 / 13.0	7.2 / 15.3
Opacity	97.62	98.11
Yellowing	5.94	5.95
Reflectance	91.13	91.15
Low Temperature Flexibility <sup>5</sup> -18°C	Pass	Pass
Low Temperature Flexibility <sup>5</sup> -26°C	Pass	Pass

**Dirt Pick-Up Resistance**



**Fig. 3 Dirt pick-up Resistance – 12-1106-DDB**

**Water Swelling Resistance**



**Fig. 4 Water Swelling – 12-1106-DDB**

**Tech Service Bulletin – Semi-Elastomeric Masonry Coatings – Epoxol™ CA118 - 01182018**

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