StanChem

StanChem SC 6898 White Roof Coating

Pounds	<u>Gallons</u>	Raw Material	Supplier	Instructions
100.0	12.00	Water		Add ingredients separately and in order
11.0	1.20	Nuosperse FX 665	Elementis	under good agitation
2.0	0.25	AMP-95	Dow	
5.0	0.60	Airex 901W	Evonik	
100.0	3.00	Tronox CR-828	Tronox	Add slowly under good agitation
400.0	17.72	Omyacarb 3LF	Omya	Increase speed and disperse to 6+ Hegman
500.0	56.18	Stanchem SC 6898	Stanchem	Add to letdown tank separately and under
28.2	3.39	Water		good agitation
2.0	0.27	Ammonium Hydroxide		
10.0	1.04	Polyphase 663	Troy	Add grind at this point
25.9	3.00	Propylene Glycol		
6.0	0.69	Acrysol RM-12W	Dow	Add with good agitation to adjust
<u>6.0</u>	<u>0.66</u>	Acrysol RM-8W	Dow	viscosity and rheology
1196.1	100.00	Total		

Formulation Parameters		Typical Paint Properties		
Weight Solids	68.48%	рН	8.0-9.0	
Volume Solids	55.87%	Viscosity (Stormer, 25C, KU)	90-100	
Density	11.96 lbs/gal			
Pigment Volume Concentrate	38.07%			
Pigment:Binder	1.64			
VOC, g/l	56			
VOC, lbs/gal	0.46			

WARRANTY:

Seller warrants that its product will meet the specifications which it sets for them. Seller's responsibility under this warranty will be limited solely to replacing the products which prove defective, provided that the Buyer gives Seller prompt notice in writing of said defect. Products may be returned to Seller only after written authorization has been obtained from Seller. The foregoing warranty is in lieu of all other warranties, whether oral, written, express, implied or statutory. IMPLIED WARRANTIES OF MERCHANTINILITY AND FITNESS FOR A PARTICULAR PURPOSE WILL NOT APPLY. Technical or other advise is furnished by us solely as an accommodation ands shall not increase the scope of our responsibilities or liability. Seller's warranty obligations and Buyer's remedies hereunder are solely and exclusively as stated herein: In no event will Seller be liable either for the labor and other associated costs incurred in replacing the product, including, but not limited to, its removal and application, or for other incidental or consequential damages.

Test Criteria to ASTM D6083

Standard Specification for Liquid-Applied Acrylic Coating Used in Roofing

Perm Cup Testing for SC 6898 Starting Point Formulation using ASTM E96

	Mil Thickness	Perm Rating	
Sample 1	0.49 mm	0.0555	
Sample 2	0.52 mm	0.0915	
Sample 3	0.50 mm	0.0598	

ASTM D471 - pulled from ASTM D6083

Method: The test shall be conducted at 23 +/- 2°C [73.4 +/- 3.6°F] using a 0.5 mm [0.020 in.] +/- 10% film submerged in distilled water for a period of 168 +/- 4 hours. At that time, the weight value is determined. Type 1 roof coatings: max of 20% by mass. Type 2 roof coatings: max of 20% by mass.

Start:	9/2/2021		
Stop:	9/9/2021		
	Weight Before:	Weight After:	% by mass
6898 #1	0.5208	0.6305	21.070%
6898 #2	0.5300	0.6507	22.775%
6898 #3	0.5290	0.6469	22.284%
6898 #4	0.5723	0.6931	21.108%
6898 #5	0.5211	0.6335	21.577%
Average:	0.5346	0.6509	21.763%

Low Temperature Flexibility - Conducted at 0°F and 10°F on 4"x6"x0.025" Aluminum Panels

Method: Apply product at uniform thickness to aluminum substrate to result in a dry film thickness of 0.36 mm and allow to cure 72 h at 23 +/- 2°C and 50 +/- 10% relative humidity followed by 120 h at 50°C prior to testing.

Mandrel bend passed at both 0°F and 10°F. No cracking, delamination, or noticeable change before and after bending of the panels.

ASTM D2370 – Percent Elongation at Break and Initial Tensile Strength

Initial Percent Elongation (break): 696.87% Initial Tensile Strength (max stress): 0.12 MPa

ASTM G154 Accelerated Weathering 1000 Hours using a QUV Cabinet

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After 1000 hours, formulation showed considerable yellowing of the film. Per ASTM D6083, no chalking or checking was noted on aluminum panels.

Dirt pick-up resistance was improved with commercially available additives known to improve dirt pick up resistance.

	EDPM	EDPM -	Alum	Alum	*HDG	*HDG -
	- Dry	Wet	Dry	Wet	- Dry	Wet
Max Load (N)	17.9	24.43	33.41	48.57	50+	50+
Avg. Force All						
Peaks (N)	15.34	23.81	26.08	36.04	32.9	34.65

Adhesion to Various Roofing Substrates - Dry and Wet

*- HDG stands for hot dipped galvanized roofing metal panels.

Aluminum wet and all the hot dipped galvanized panels measured above the max of our instrument which is 50 newtons of force.

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