

# Acronal<sup>®</sup> NX 3250 M

Aqueous, all-acrylic polymer dispersion designed for solar reflective, durable, dirt-resistant, elastomeric roof coatings with excellent adhesion to spray polyurethane foam and other roofing substrates

## Properties

### Typical Properties

Solids content	%	ca. 55
pH		ca. 9.0
Viscosity at 73 °F (Brookfield RV viscometer, Spindle #4, at 100 rpm)	mPa s	ca. 200

### Other properties of the dispersion

Density	lbs./gal g/cm <sup>3</sup>	ca. 8.60 ca. 1.03
Film-forming temperature	°F °C	ca. <32 ca. <0
Dispersion type		Anionic
Plasticizer content		Free from plasticizer
Sensitivity to freezing	°F °C	below 32 below 0

### Properties of the film

Glass transition temperature T <sub>g</sub> (DSC)	°C	ca. -33
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\* The values above should not be taken as specification.

## Applications

### Fields of application

Acronal NX 3250 M is designed for elastomeric roof coating formulations to achieve the following properties:

- Balanced tensile & elongation properties
- Excellent adhesion to spray polyurethane foam, metal, concrete & others
- Low water absorption
- Excellent low temperature flexibility
- Early Rain Resistance when combined with Quick-Trigger<sup>®</sup> 4333
- Dirt pick-up resistance
- Energy savings from high solar reflectivity that cools roof surfaces
- Excellent exterior durability
- Environmentally friendly profile
- Code compliance with protocols such as ASTM-6083, Miami Dade, & California Title 24

**Formulations**

Acronal NX 3250M can be formulated into flexible roof coatings as shown by the guiding formulation in Table 1. Ionic cross-linking with the use of zinc oxide is necessary to achieve excellent mechanical properties.

**Table 1**

<u>Pigment grind</u>	<u>LBS</u>	<u>Gallons</u>	<u>Physical Constants</u>	<u>Value</u>
Water	149.71	17.96	<b><u>Solids Content</u></b>	
Dispex AA4144 <sup>1</sup>	4.04	0.39	By Weight	69.7 %
KTPP	1.37	0.06	By Volume	56.7 %
Acticide MBS 2550 <sup>2</sup>	2.06	0.24	PVC	44.5 %
Acticide MKW2 <sup>2</sup>	5.84	0.7	Viscosity (KU)	94
Foamaster MO NXZ <sup>1</sup>	1.87	0.25	pH	9.2
Snowwhite 12 <sup>3</sup> (Calcium Carbonate)	450.13	19.93	Wt./Gal.	11.91 lbs./gal
Ti-Pure R-960 <sup>4</sup> (Titanium Dioxide)	69.11	2.07	<b><u>Performance Properties</u></b>	
			14 d Tensile Strength	240 psi
Zoco 101 <sup>5</sup> (Zinc Oxide)	9.91	0.21	14 d Elongation	133 %
<b>Total for Pigment Grind</b>	694.04	41.81	Wet Adhesion, pli, SPF	4.7
			7d Water Swelling, %	7.8 %
<b>Letdown</b>			Storage Stability, 50°C, 30d	Stable
Acronal NX3250M <sup>1</sup>	462.03	53.82	<b><u>Raw Material Suppliers</u></b> 1. BASF 2. Thor 3. Omya 4. Chemours 5. Zochem 6. Ashland	
Foamaster MO NXZ <sup>1</sup>	1.87	0.25		
Texanol	6.87	0.87		
Ammonia	0.98	0.13		
Propylene Glycol	23.99	2.78		
Natrosol 250 MXR <sup>6</sup> (Mix w/ PG)	3.51	0.33		
<b>Formulation Total</b>	<b>1193.30</b>	<b>100.00</b>		

**Safety****General**

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

**Safety Data Sheet**

All safety information is provided in the Safety Data Sheet for Acronal NX 3250 M

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