

# Acronal<sup>®</sup> NX 3250 M

## Chemical Nature

Aqueous styrene-acrylate copolymer dispersion for the manufacture of premium ceramic tile adhesives

## Properties

### Typical Properties

Solids content	%	ca. 55
pH		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

Density	g/cm <sup>3</sup>	ca. 1.05
Glass transition temperature T <sub>g</sub> (DSC)	°C	ca. -33
Water absorption (After 24 hours immersion in water)	%	ca. 6.5
Mechanical strength*		
Tensile strength	psi N/mm <sup>2</sup>	ca. 140 ca. 1.0
Elongation at break at 23 °C	%	ca. 925
Appearance		clear, transparent
Surface		somewhat tacky

\* The values above should not be taken as specification.

## Applications

### Fields of application

Acronal NX 3250 M has been designed to drop into any Elastomeric Roof Coating Formulations used in the reflective Roof Coatings Industry. Ease of convenience and excellent performance properties is deliberate in the design of the Acronal NX 3250 M. For areas where permanent water loading is anticipated or the slope is <2° Acronal NX 3250 M is not recommended.

Acronal NX 3250 M contains a room temperature crosslinking monomer which achieves excellent adhesion to Polyurethane Foam, Galvanized Steel, Concrete, etc. If applied over an Asphalt roof it is recommended that a suitable primer be used to prevent the Asphalt bleed migration and subsequent discoloration.

## Processing

Acronal NX 3250 M is a mechanically stable anionic dispersion that can be pigmented and formulated into flexible coatings as shown by the starting formula in Table 1. Zinc Oxide or other Metal Oxides such as Calcium Oxide are necessary to achieve ionic type crosslinking of the polymer and excellent properties.

Table 1

	Formulation
Raw Materials -	Weight %
Water	6.88
Propylene glycol	2.24
30% Pigment Disperser® NL <sup>1</sup>	0.45
Acronal NX 3250 M <sup>1</sup>	28.52
BYK 035 <sup>2</sup>	0.45
Kronos 2310 <sup>3</sup>	7.82
Kadox 915 <sup>4</sup> (Zinc oxide)	3.41
Duramite <sup>5</sup>	21.91
Atomite <sup>5</sup>	5.94
Omyacarb UFT <sup>6</sup>	7.93
Proxel GXL <sup>7</sup>	0.22
Acronal NX 3250 M	12.81
Natrosol 250 MXR	0.34
Ammonia	0.23
BYK 035 <sup>2</sup>	0.92
Totals	100.0
~ Weight % solids	72

Mix ingredients in the above order until smooth.

Mixture Properties:	PVC (%)	~ 42
	Viscosity (Krebs)	~ 105
	Volume % solids	~ 59

Suppliers for ingredients shown in Table 1.

<sup>1</sup> BASF Corporation, Charlotte, NC

<sup>2</sup> BYK-Chemie USA, Wallingford, CT

<sup>3</sup> Kronos, Inc., Houston, TX

<sup>4</sup> Zinc Corporation of America, Monaca, PA

<sup>5</sup> Imerys; or Distributor Fitz Chem Corporation, Itasca, IL

<sup>6</sup> Omya, Inc., Alpharetta, GA

<sup>7</sup> Zeneca Biocides, Wilmington, DE

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## 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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## Storage

Please refer to the "Handling and Storage of Polymer Dispersions" brochure.

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BASF Corporation  
Dispersions and Resins  
11501 Steele Creek Road  
Charlotte, North Carolina 28273  
Phone: (800) 251 – 0612  
Email: [CustCare-Charlotte@basf.com](mailto:CustCare-Charlotte@basf.com)  
Email: [edtech-info@basf.com](mailto:edtech-info@basf.com)  
[www.basf.us/formulation-additives](http://www.basf.us/formulation-additives)