

# Acronal<sup>®</sup> PRO 80 na

<b>Product Description</b>	Acronal PRO 80 na is a next generation polymer emulsion for medium-duty anticorrosion primers and fillers for industrial metal coating applications.
<b>Key Features &amp; Benefits</b>	<ul style="list-style-type: none"><li>- Enhanced corrosion protection</li><li>- Excellent barrier and inhibiting properties</li><li>- APEO and zinc free</li><li>- Good adhesion</li><li>- Good early rain resistance</li><li>- High PVC</li><li>- Low odor</li></ul>
<b>Chemical Composition</b>	Acrylic latex emulsion

## Properties

<b>Typical Characteristics</b>	Appearance		white emulsion
	Solids	% by weight	~ 50
	Viscosity at 25°C	cps	~ 500
	pH		~ 8.5
	Density (as supplied)	g/ml	1.09
	MFFT	°C (°F)	~ 20 (68)
	Freeze-thaw stable		No

\* These typical values should not be interpreted as specifications.

## Application

Acronal PRO 80 na is a unique barrier and inhibiting polymer emulsion for medium-duty anticorrosion primers and fillers.

Acronal PRO 80 na is recommended for applications such as:

- Interior/exterior general industrial metal coating applications
- Industrial maintenance applications

## Formulation Guidelines

**Compatibility** – Acronal PRO 80 na is compatible with a variety of anticorrosion additives. The product provides the possibility to formulate with a broad range of reactive anticorrosion pigments, especially those based on zinc phosphates.

**Film Forming Agents** – Suitable film forming agents should generally be added to achieve homogeneous films at lower temperatures. The recommended addition is 2 – 4% of a blend of mineral spirits and ethylene glycol n-butyl ether and/or diethylene glycol n-butyl ether or propylene glycol phenyl ether.

**Thickeners** – Viscosity and flow can be adjusted by adding thickeners, preferably in the final stage of production. In reference to the corrosion protection aspect, associative thickeners perform well. Good leveling and Newtonian flow can be achieved with water-miscible solvents. In aqueous anticorrosion formulations, the proportion of thickener should not exceed 1%, calculated as solids on solid binder.

## Performance

Acronal PRO 80 na offers excellent salt-spray resistance with dry film thickness of 3.2 mils or 80 microns.

This new barrier and inhibiting product offers an active corrosion protection barrier against oxygen, water and other ions that cause surface erosion as well as good early rain resistance and excellent adhesion.

### Starting Point Formulations

The following formulation is recommended for an initial evaluation of Acronal PRO 80 na. Additional optimization of the formulation may be desired to achieve maximum performance or appearance for specific applications.

#### Acronal PRO 80 RED PRIMER, Formula LJB-146

<b>Materials</b>	<b>Pounds</b>	<b>Gallons</b>
Acronal® PRO 80 na	214.95	23.62
FoamStar® ST 2438	2.91	0.36
Hydropalat® WE 3322	4.66	0.56
<b>Premix, then add with agitation:</b>		
DI Water	83.30	9.98
Lutensit® A-EP	1.16	0.12
Ammonium Hydroxide (28%)	2.91	0.32
<b>Add slowly with agitation:</b>		
Dowanol <sup>1</sup> PPh	8.74	1.00
Exxsol <sup>2</sup> D60	8.74	1.32
Heucophos <sup>3</sup> ZMP	131.07	4.13
Heucorin <sup>3</sup> RZ	14.57	0.70
Nicron <sup>4</sup> 504	163.11	7.00
Bayferrox <sup>5</sup> 130 M	120.58	2.89
DI Water	28.35	3.40
<b>Ball mill or high speed disperse, do not let temperature exceed 90°F, Hegman 6.5</b>		
<b>Then add:</b>		
Acronal® PRO 80 na	381.55	41.93
FoamStar® ST 2438	1.75	0.22
Flash-X <sup>6</sup> 150	8.15	0.86
<b>Premix:</b>		
Rheovis® PU 1191	2.33	0.27
Ethylene glycol n-butyl ether	2.33	0.31
<b>Adjust pH to 9.2</b>		
Ammonium Hydroxide (28%)	9.09	1.01
<b>Total</b>	<b>1,190.25</b>	<b>100.0</b>

#### Formulation Attributes

Solids	62.6% by wt, 49.5% by volume
PVC	30%
Viscosity (Stormer)	90 – 95 KU
VOC (calculated)	49 g/l

<sup>1</sup>Trademark of The Dow Chemical Company.

<sup>2</sup>Trademark of Exxon Mobile Corporation.

<sup>3</sup>Registered trademark of Heubach GmbH.

<sup>4</sup>Registered trademark of IMERYS Talc America, Inc.

<sup>5</sup>Registered trademark of Lanxess Corporation.

<sup>6</sup>Registered trademark of Hammond Group, Inc.

## 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 PRO 80 na.

## Storage

Please refer to the "Handling and Storage of polymer dispersions" brochure.

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