

# ENCOR® FLEX 187

ALL-ACRYLIC LATEX FOR ELASTOMERIC COATINGS



## Product Description

ENCOR® Flex 187 is a high solids, all-acrylic latex designed for elastomeric roof and wall coatings. With its inherent dirt pick-up resistance, this polymer meets the requirements of the “Leadership in Energy and Environmental Design (LEED) Green Building Rating System” and the U.S. Environmental Protection Agency/ Department of Energy’s “Energy Star” program, as well as requirements from other federal, state and private regulating bodies.

Properly formulated, ENCOR® Flex 187 also meets the requirements of ASTM D-6083 (“Standard Specification for Liquid Applied Acrylic Coating used in Roofing”) and the “Cool Roof Rating Council’s (CRRC)” product rating program for reflectance and emittance at VOC levels less than 50 grams per liter.

## Polymer Design

- 100% Acrylic Latex
- High solids for greater formulating latitude
- Low VOC Capable (<50 g/L)

## Performance Benefits

- UV initiated crosslinking for enhanced dirt pick-up resistance
- Passes Wind Driven Rain test
- Cement compatible
- Meets requirements of ASTM D-6083

## Typical Properties<sup>1</sup>

Polymer Type	Acrylic
Total Solids, % by weight	60
Weight per Gallon, lb	
Latex	8.9
Polymer	9
pH Value	8.0
Particle Size, microns	0.45
Viscosity, 25°C, (Brookfield, RVT, #6, 60 rpm), cP	150
Glass Transition Temperature (Tg), midpoint, °C	-18
Clear Film Properties	
Ultimate Tensile Strength, psi	129
Ultimate Elongation, %	1330

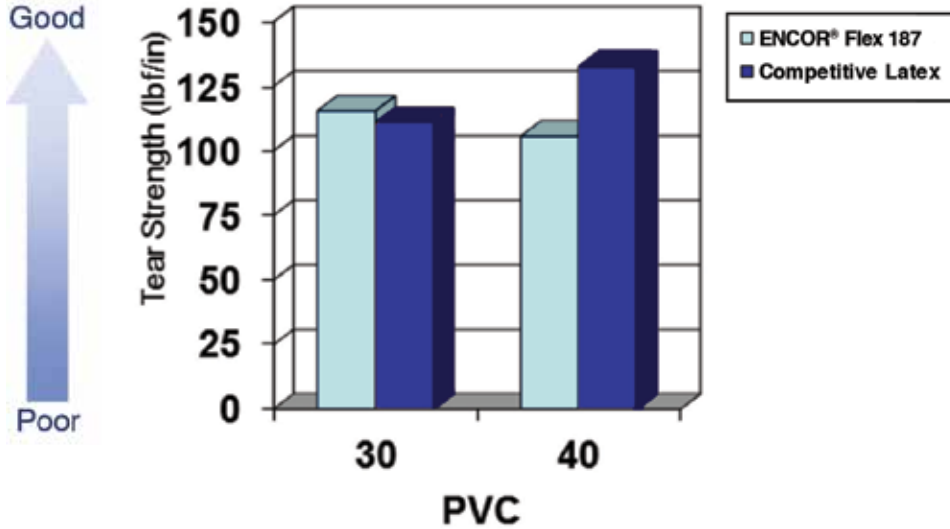
<sup>1</sup> Typical values not to be construed as sales specifications.



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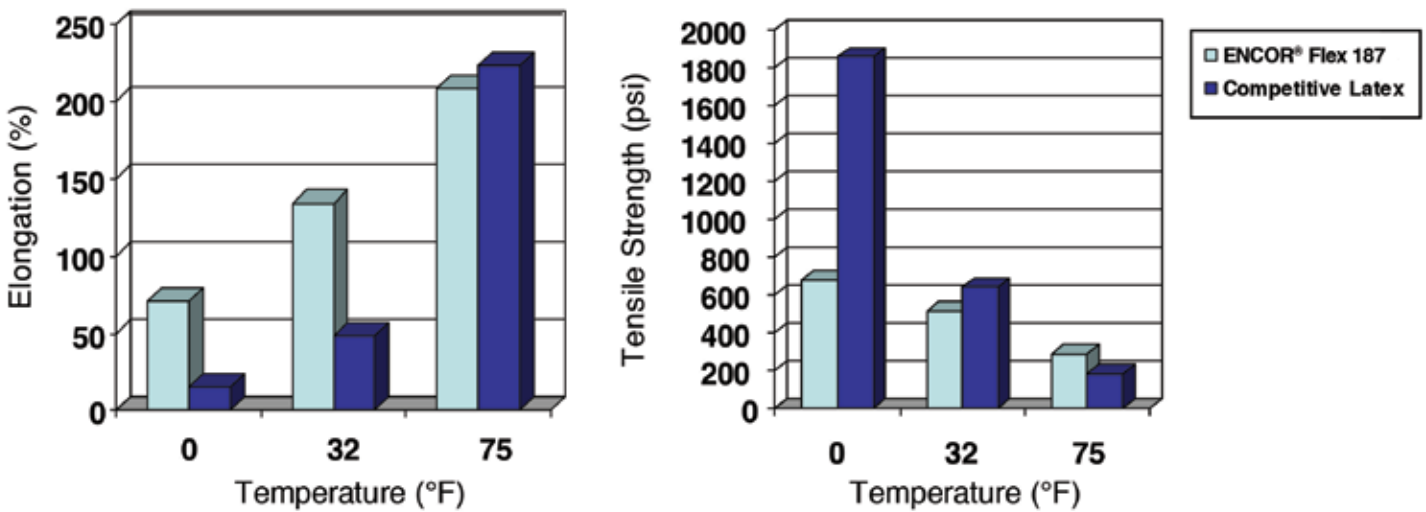
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## Tear Strength



ENCOR® Flex 187 has excellent tear strength across PVC range.

## Tensile and Elongation Properties (40% PVC)



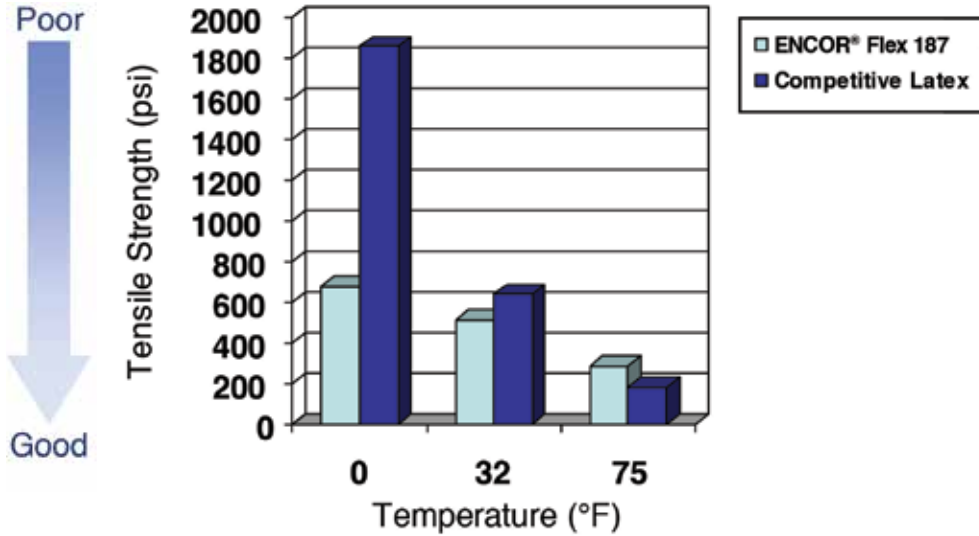
ENCOR® Flex 187 displays excellent elongation across the temperature range while maintaining outstanding tensile strength

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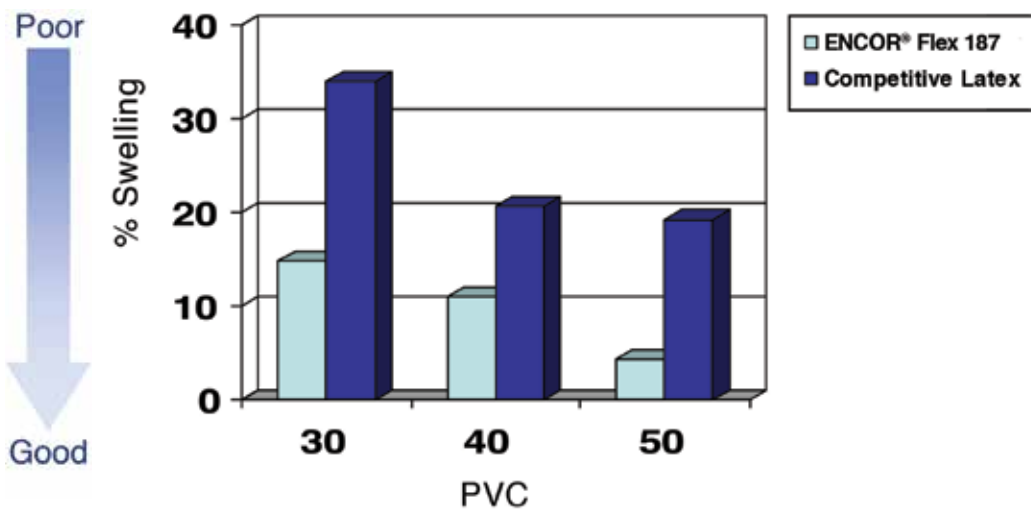
## Water Resistance

### Permeance



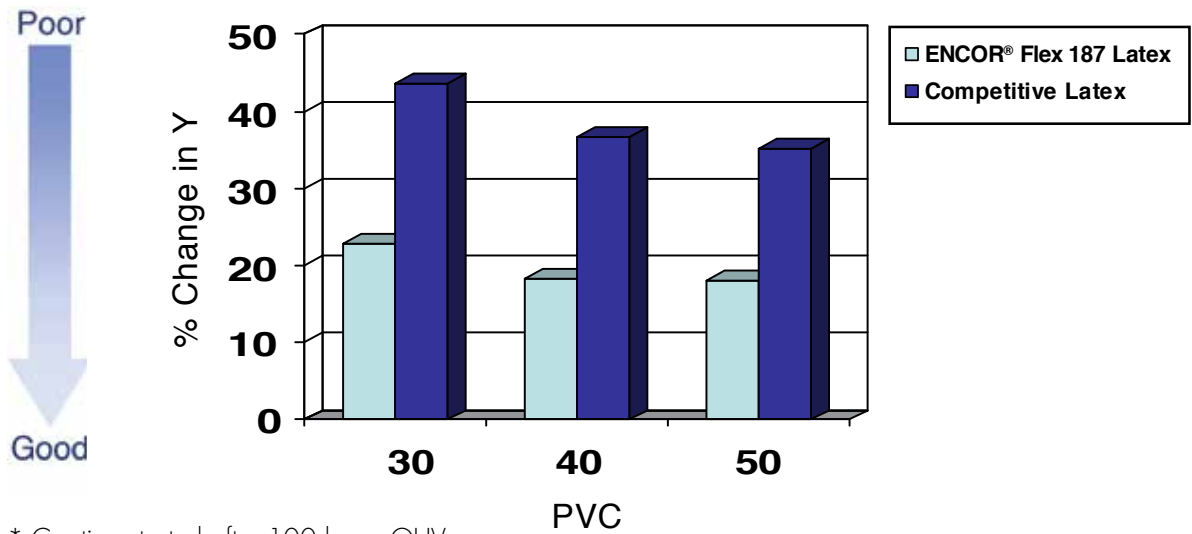
ENCOR® Flex 187 maintains low perms across the PVC range

### Water Swelling



ENCOR® Flex 187 demonstrates low water uptake (swelling) across the PVC range

**Accelerated Dirt Pick-Up Resistance\***



\* Coatings tested after 100 hours QUV.

ENCOR® Flex 187 demonstrates substantial improvement in dirt pick-up resistance versus a competitive latex across the PVC range

**Accelerated Dirt Pick-Up Resistance**

Initial Film

Standard elastomeric coating after accelerated DPR testing

Coating based on ENCOR® Flex 187



## Starting Pont Formulations ENCOR® Flex 187 Formulation

Ingredients	Lbs	Gallons
<i>Pigment Grind</i>		
Water	128.0	15.4
Coadis™ 123K	25.5	2.9
Surfynol® 104E	2.5	0.3
Propylene Glycol	17.0	1.8
Foamaster® NXZ	1.5	0.2
Ti-Pure® R-960	105.2	3.2
Drikalite®	375.0	16.6
Polyphase® 663	7.0	0.3
<i>Letdown</i>		
ENCOR® Flex 187	502.7	57.8
Ester alcohol cosolvent	4.1	0.5
Foamaster® NXZ	4.1	0.5
Ammonium Hydroxide (28% aq.)	1.6	0.2
Natrasol® Plus 330	3.0	0.3
Total	1177.2	100.00

### Paint Properties:

Weight Solids, %	65.9
Volume Solids, %	51.4
PVC, %	39.7
VOC, lb/gal	0.44
VOC, g/L	50.0
Density, lb/gal	11.73
Total Pigment, %	40.92
Non-volatile Binder, %	23.56
Coalescent Level, %	1.48
Dispersant Level, %	1.168

## Formulating Guidelines

- Avoid associative thickeners due to water sensitivity
- Extenders should be limited to low oil absorption and particle sizes above 10µm
- Keep pigment volume concentration less than 45%; higher PVCs can lower adhesion results
- Field testing is recommended to assure adhesion

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## Product Safety

Before handling the materials listed in this bulletin, read and understand the product SDS (Safety Data Sheet) for additional information on personal protective equipment and for safety, health and environmental information. For environmental, safety and toxicological information, contact our Customer Service Department at 1-866-837-5532 to find a SDS, or visit our web site: [www.arkemacoatingresins.com](http://www.arkemacoatingresins.com)

No chemical should be used as or in a food, drug, medical device, or cosmetic, or in a product or process in which it may contact a food, drug, medical device, or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Arkema Coating Resins requests that the customer read, understand, and comply with the information contained in this publication and the current SDS(s). The customer should furnish the information in this publication to its employees, contractors, and customers, or any other users of the product(s), and request that they do the same.

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## Storage and Handling

Follow procedures typically recommended for polymer dispersions. Use corrosion-resistant storage tanks and piping. Air-operated diaphragm pumps are preferred.

Packaged material should be stored indoors in the original unopened and undamaged container, in a dry place. Exposure to direct sunlight should be avoided.

Avoid extreme temperatures. Do not freeze; store between 40-90°F (4-32°C).

For more details, refer to "*Storage and Handling of Arkema Coating Resins Products – A Basic Guide*".



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