

# ENCOR® 182

VINYL ACETATE-ETHYLENE LATEX FOR  
PIGMENTED CAULKS



## Product Description

ENCOR® 182 is a vinyl acetate-ethylene latex that can be formulated into caulks that pass the low temperature flexibility standard of the ASTM C-834/0°C Specification. This value engineered product is designed for use in interior grade caulks used by paint contractors and in the DIY market.

ENCOR® 182 is fully compatible with ENCOR® 163S and 169S and can be blended with them should ASTM C-834/-17 °C performance be desired.

## Polymer Design

- Vinyl acetate-ethylene copolymer

## Performance Benefits

- Excellent pigment wetting
- Outstanding cost-performance
- EnVia® Compliant<sup>1</sup>

## Typical Properties<sup>2</sup>

Total Solids, % by weight	56
Latex Weight per Gallon, lb	8.8
pH Value	4.8
Particle Size, µm	0.42
Viscosity, Brookfield, cP	90
Glass Transition Temperature (Tg), °C	5
Free Film, Tensile Maximum, psi	650
Elongation at Break, %	750

<sup>1</sup>These products meet the standards of Arkema Coating Resins' EnVia® program. These products are designed to assist formulators in meeting their sustainability and regulatory goals in their finished products.

<sup>2</sup>The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications.



## Formulating Guidelines

ENCOR® 182 offers excellent formulating latitude including compatibility with a wide range of non-phthalate plasticizers.

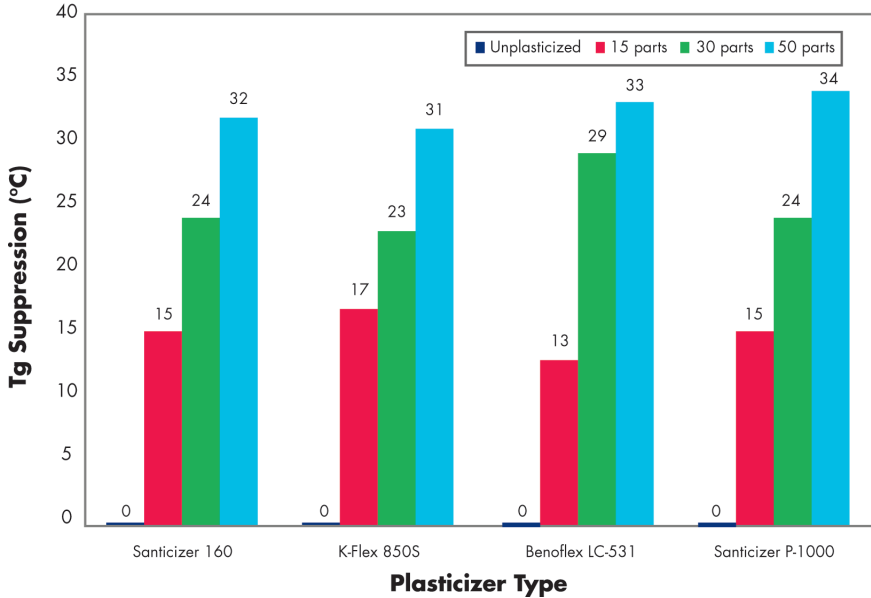


Figure 1 illustrates how the low temperature flexibility of ENCOR® 182 can be improved through the addition of plasticizer.

Figure 1: Impact of plasticizer level on glass transition temperature of ENCOR® 182

ENCOR® 182 latex can be blended with all-acrylic products to enhance performance and maximize value in formulations.

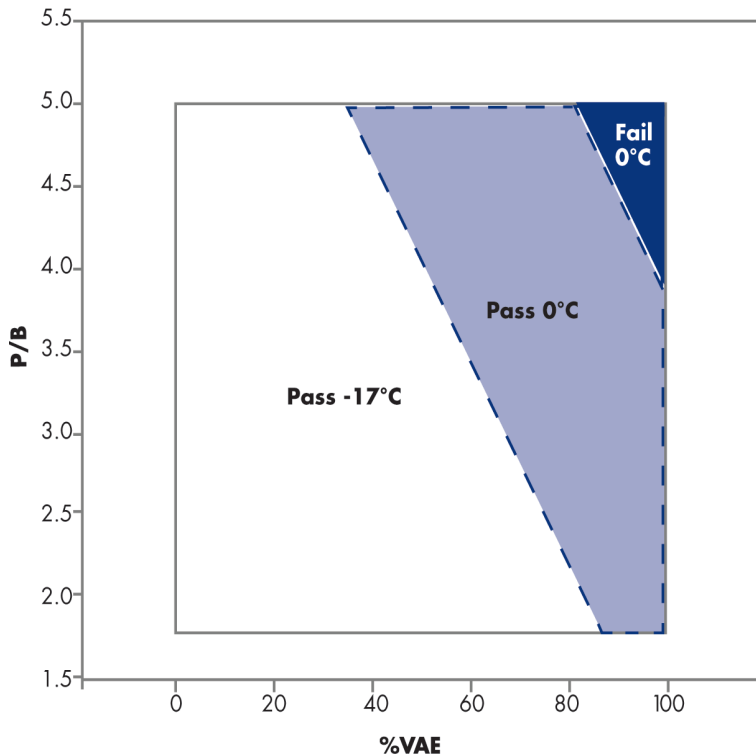


Figure 2 illustrates the ability to achieve the desired performance either by adjusting pigment to binder ratio or ENCOR® 182 and ENCOR® 169S blend ratios.

Figure 2: Impact of pigment to binder ratios on low temperature flexibility of blends of ENCOR® 182 and ENCOR® 169S latex

### Suggested Formulas

#### Non-spec Builders Caulk

Ingredients	Pounds
Plasticizer	78.1
Propylene Glycol	12.4
Hydroxyethyl Cellulose (1)	1.9
Nonionic Surfactant (2)	11.2
Dispersant (3)	2.8
Preservative, 1.5% active solution	1.2
ENCOR® 182	315.7
Water	105.2
Calcium Carbonate, 6 micron	862.8
Titanium Dioxide	5.3
Organofunctional silane	1.0
Ammonium Hydroxide, 28%	1.5
Rheotech 146	9.3
Mineral spirits	9.6

#### Caulk Properties

P/B	5.0
Total P/B	3.4
Total Solids, % by weight	80.0
SCAQMD VOC, g/L	170
CARB VOC, % by weight	1.3

#### C-834/ -17°C Compliant Caulk

Ingredients	Pounds
Plasticizer	85.4
Propylene Glycol	13.9
Hydroxyethyl Cellulose (1)	2.2
Nonionic Surfactant (2)	10.8
Dispersant (3)	2.6
Preservative, 1.5% active solution	1.4
ENCOR 182	182.1
ENCOR 169S	167.2
Water	81.6
Calcium Carbonate, 6 micron	811.3
Titanium Dioxide	7.4
Organofunctional silane	1.1
Ammonium Hydroxide, 28%	1.7
Rheotech 146	11.9
Mineral spirits	10.8

#### Caulk Properties

P/B	4.0
Total P/B	2.8
Total Solids, % by weight	80.8
SCAQMD VOC, g/L	189
CARB VOC, % by weight	1.3

#### C-834/ 0°C Compliant Caulk

Ingredients	Pounds
Plasticizer	99.6
Propylene Glycol	14.7
Hydroxyethyl Cellulose (1)	2.3
Nonionic Surfactant (2)	8.7
Dispersant (3)	2.4
Preservative, 1.5% active solution	1.5
ENCOR® 182	409.2
Water	46.2
Calcium Carbonate, 6 micron	722.8
Titanium Dioxide	8.6
Organofunctional silane	1.2
Ammonium Hydroxide, 28%	2.0
Rheotech 146	13.6
Mineral spirits	11.5

#### Caulk Properties

P/B	3.3
Total P/B	2.3
Total Solids, % by weight	79.7
SCAQMD VOC, g/L	217
CARB VOC, % by weight	1.1

- 1) Hydroxyethyl cellulose grade: 1,500 cP at 1% aq. Solution
- 2) HLB 17.6
- 3) Sodium neutralized, polyacid dispersant, 30% active

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### Product Safety

Before handling the materials listed in this bulletin, read and understand the product MSDS (Material 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 an MSDS, 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 MSDS(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. Avoid temperature extremes. Do not freeze; store between 4-40°C.

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