



# **RHOPLEX™ EC-2020 BINDER**

HIGH-SOLIDS ACRYLIC POLYMER FOR  
ELASTOMERIC ROOF COATINGS

*January 2020*

**CONSTRUCTION CHEMICALS**

# RHOPLEX™ EC-2020 BINDER

- High solids
- 100% acrylic
- Excellent flexibility and dirt-pickup resistance
- Good asphalt bleed resistance
- Good adhesion to:
  - Polyurethane foam
  - Metal
  - Concrete
- Can be formulated to meet ASTM D6083 TYPE I and TYPE II standards



## FEATURES & BENEFITS

- Provides a barrier to ultraviolet light, which rapidly degrades the surface of asphaltic materials
- Significantly lowers roof temperatures, which can help reduce cooling costs
- Resists dirt accumulation
- Can be applied by spray, brush, or roller
- Possible to formulate with less than 50 g/l volatile organic compounds (VOC)
- Easily cleaned up with soap and water



## CUSTOMER VALUE

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### Regulatory compliance

- Ability to formulate a roof coating that meets ASTM D6083 Tier 1

### Improved aesthetics

- Asphalt bleed resistance that is superior to existing Tier 1 products

### Enhanced durability

- Maintains excellent adhesion to foam and other common roofing substrates

### Broader scope

- High solids which increases formulating latitude for the manufacturer

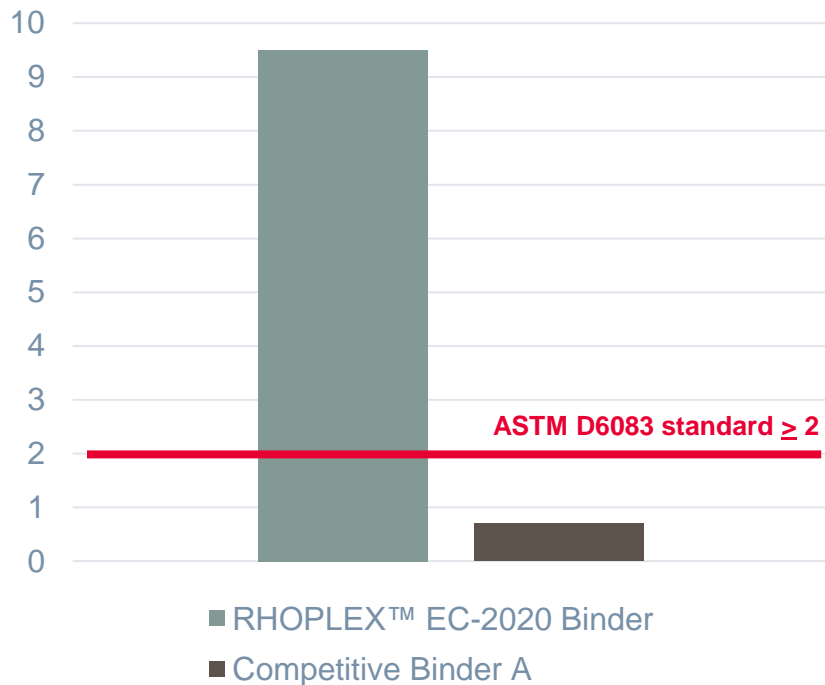
## RHOPLEX™ EC-2020 Binder

Property	Typical Values
Appearance	Milky, white liquid
Solids content, %	60 - 61
pH	8.5 – 10.0
Viscosity; cP (#2 spindle @60 rpm, 25°C)	< 400
Weight per U.S. gallon (wet, lbs/gal)	8.76
Bulking value (wet), gal/lbs	0.114
Bulking value (dry), gal/lbs	0.105
MFFT°C	0

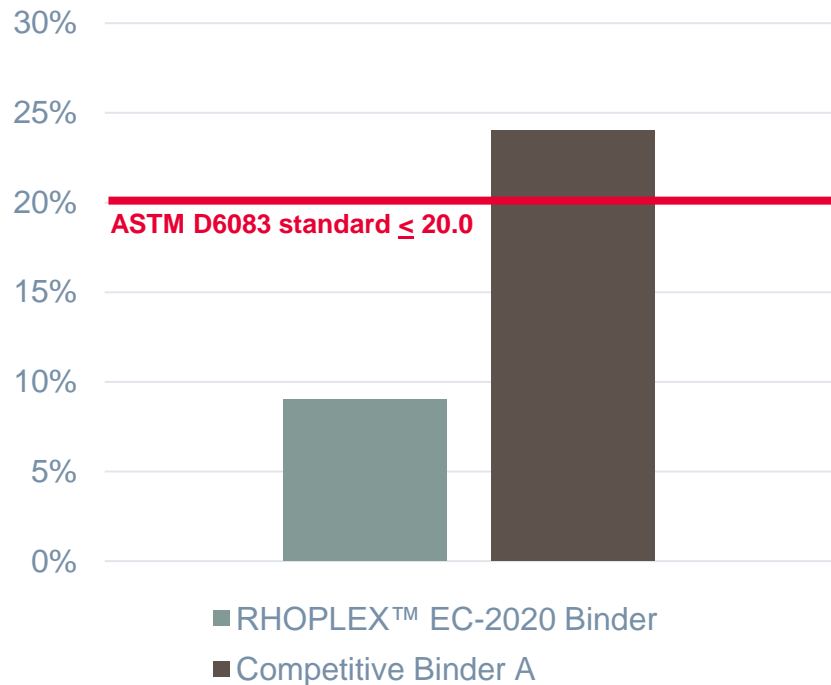
**Typical  
physical  
properties**

## PERFORMANCE HIGHLIGHTS

### Polyurethane Foam Adhesion



### Water Swelling



Coating ID	RHOPLEX™ EC-2020 Binder	Competitive Binder A
Viscosity, KU, initial	104	98
pH, initial	9.0	7.9
Viscosity after 30 Days @50° C	104	94
pH, after 30 Days@50° C	8.7	7.9
Mechanical Properties, 75°F, initial, X-Head=1.0"/min		
Tensile Strength, max, psi	244	226
Elongation @ break	328%	455%
Mechanical Properties, 75°F, 1000 hr. weathered		
Tensile Strength, max, psi	351	381
% change in Tensile Strength after weathering	+44%	+69%
Elongation @ break	221%	256%
% change in Elongation after weathering	-33%	-44%
Tear Resistance, lbf/in	105	111
Wet Adhesion		
Polyurethane Foam, 3-lb., Wet, PLI	9.5 C	0.7 A
Galvanized Metal, Wet, PLI	8.5 C	7.5 C
Other Properties		
Permeance, US Perms	21.0	23.0
Water Swelling at max, after 7 days	9%	24%
Dirt Pickup Resistance, Y-Reflectance retained	99%	99%
Bleed Block (Delta E) - 7 Day@60° C	12.3	12.0
Low Temp Flex, -26C on 1/2" Mandrel, 1000 hr. weathered	pass	pass

# Testing results

RHOPLEX™ EC-2020 Binder  
vs. Competitive Binder A





# Questions?



# Thank you



## HANDLING PRECAUTIONS

Before using any product mentioned herein, consult the product's Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

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