

# BONDERITE S-FN 330 ACHESON FUNCTIONAL COATING (KNOWN AS EMRALON 330)

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## DESCRIPTION

A coating of **BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** offers clean, dry, long lasting, solvent resistant lubrication for sliding, rubbing or rolling surfaces. **BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** is a resin-bonded PTFE lubricant supplied as one component in ready-for-use form. Its low temperature cure of 150°C (300°F) does not affect heat-sensitive substrates such as light metals, wood, rubber and some plastics. The extremely thin coating of **BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** necessary to achieve maximum lubrication (from 0.0003 to 0.0007 inch, or 0.008 to 0.018 millimeter) allows post-treatment of parts while maintaining original part dimensions without redesign. In many cases, **BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** coating can replace metal plating or finishing and offers improved performance at lower cost.

## FEATURES

- Satiny finish
- Low coefficient of friction
- Remains flexible over a wide range of temperatures
- Good release properties with a low coefficient of friction
- Consistent and uniform dip spin or spray application performance
- Resistant to a variety of oil and solvents

## BENEFITS

- Attractive component appearance to secure customer satisfaction
- Ability to meet lubrication requirements for the component
- Application for a variety of environmental performance requirements
- Ability to meet lubrication and assembly requirements for the component and application
- Versatile application techniques to minimize operation costs
- Ability to design into a variety of component applications with differing environmental exposure needs

## TYPICAL APPLICATIONS

- Fasteners
- Sliding Rails
- Lock mechanisms
- Seat belt components
- Latches
- Mechanisms
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## TYPICAL PROPERTIES (of wet product)

Color:	light blue
Pigment:	PTFE
Binder:	thermoset
Carrier:	MEK or Bonderite L-FG SB-2 Acheson (known as Acheson SB-2 solvent)
Diluent:	MEK or Bonderite L-FG SB-2 Acheson (known as Acheson SB-2 solvent)



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<b>TYPICAL PROPERTIES</b> (as cured)	Consistency:	liquid
	Viscosity:	60 – 150 mPa·s
	Density:	0.96 kg/l (8.01 lb/gal)
	Solids content by weight:	~ 25%
	Flash point:	10°C (50°F)
	VOC:	715.0 g/l (6.0 lb/gal)
	Theoretical coverage::	6.81 m <sup>2</sup> /kg @ 25 µm (266 ft <sup>2</sup> /gal @ 1 mil) dry film thickness
	Color:	Green
	Coefficient of friction:	0.05 – 0.07 static
	Service temperature	
	-continuous:	130°C (275°F)
	Salt spray resistance*:	> 46 hours over zinc phosphated surface, 25 micron film thickness; up to 200 hours with appropriate substrate pre-treatment

## METHOD OF USE

### Surface Preparation

For maximum resistance to wear, corrosion and abrasion, the following procedures are recommended:

Steel: Degrease, grit blast, and/or chemically pretreat with Bonderite M-ZN 20 (known as Granodine 20), Bonderite M-MN 2 (known as Lubrite 2), or equivalent

Stainless Steel: Degrease grit blast.

Aluminum: Degrease, pretreat with Bonderite M-CR 1200S (known as Alodine 1200S) or equivalent, anodize.

### Mixing

**BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** can be spray applied undiluted. However, to obtain maximum smoothness, dilute the product with Methyl Ethyl Ketone (MEK) or **BONDERITE L-FG SB-2 ACHESON (known as Henkel solvent SB-2)** in the ratio of three parts product (by weight) to one part solvent. If parts are to be dipped, a 3:2 (product:solvent) weight ratio is recommended. If dip-spin equipment is used, adjust the product to 20-30 seconds on a #2 Zahn cup (neat product may already be in this range).

### Application

Use an external-atomizing spray gun with 35 to 50 psi air pressure and adjust the gun to give a well-atomized spray. For optimum performance, the final coating thickness should be 0.0003-0.0010 inches (0.008 to 0.025 millimeters). When properly applied, the coating will be even and free of runs, blisters, or "fish eyes." Some electrostatic spray systems may be used to apply **BONDERITE S-FN 330 ACHESON (known as EMRALON 330)**. Contact our Specialty Coatings Business Group's Technical Service Department for details.

**BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** can also be applied by dipping. The product should be diluted 3:2 (product: solvent) by weight with MEK. The average dip coating will produce a heavier coat, but a pre-cure of ten minutes at 121° to 135°C (250° to 275°F) or one minute at 177°C (350°F) is required between dips. Dip-spin will require two or three coats. A partial cure of one minute at 177°C (350°F) is required between coats.



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## Curing

**BONDERITE S-FN 330 ACHESON (known as EMRALON 330)** must be air-dried to the touch (2-5 minutes) before being placed in the curing oven. For optimum corrosion and wear resistance, cure the coating for one hour at 160°C (325°F) in an air-circulating oven or under infrared lamps. Acceptable cure cycles include one hour at 150°C (300°F), 10 minutes at 175°C (350°F), 8 minutes at 204°C (400°F), or 5 minutes at 260°C (500°F). Note that as cure temperature increases, cure time becomes more critical. Degree of cure may be monitored by the color of the coating. As the cure progresses, the coating will gradually change in color from light blue to dark green. Cured coatings can only be removed by sandblasting or applying strong caustic solutions.

## STORAGE/ HANDLING

Keep container tightly closed when not in use. Store in a cool, well ventilated area. Keep away from heat, sparks, and open flame. Protect material from direct sunlight. Ground and bond containers when transferring materials. Empty containers may retain hazardous properties. Follow all MSDS/label warnings even after container is emptied. Shelf life for this product is 2 years from date of qualification under original seal.

## APPLICATION ASSISTANCE

Henkel's Application Specialists are available to assist you in production start-up with **BONDERITE S-FN 330 ACHESON (known as EMRALON 330)**. Visit our website [www.henkelna.com/metals](http://www.henkelna.com/metals) for more information and for the Henkel global location nearest you.

## HEALTH & SAFETY

Please consult Material Safety Data Sheet

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