

BONDERITE S-FN 329 ACHESON

DRYFILM COATING

(KNOWN AS EMRALON 329)

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DESCRIPTION

BONDERITE S-FN 329 ACHESON (known as EMRALON 329) is a fast-drying, resin bonded, fluorocarbon dry film lubricant capable of coating wood, metal, rubber, plastic, and glass substrates. It is designed for low-friction, light load, repetitive stresses. Moving parts wear longer, work harder, and need less maintenance when coated with this product. **BONDERITE S-FN 329 ACHESON (known as EMRALON 329)** cures at room temperature, allowing application where conventional sintered PTFE coatings cannot be considered. The coefficient of friction (static) when the coating is properly applied ranges from 0.06 to 0.09. A coating thickness of 0.0002 to 0.0007 inches (0.0051 to 0.0178 millimeters) generally provides the optimum low friction properties.

BONDERITE S-FN 329 ACHESON (known as EMRALON 329) is a liquid concentrate that can be diluted according to need. Although Emralon® products are not specifically designed as protective coatings, they do offer moderate resistance to chemicals.

FEATURES

- Air dry curing process
- Excellent adhesion to many substrates, including aluminum, plastics and steel
- Remains flexible over a wide range of temperatures
- Good release properties with a low coefficient of friction

BENEFITS

- Energy and processing savings
- Minimal pre-treatment required to achieve coating adhesion, thereby reducing processing costs
- Application for a variety of environmental performance requirements
- Ability to meet lubrication and assembly requirements for the component and application

TYPICAL APPLICATIONS

- Sealed systems
- Solenoid plungers
- Piano actions
- Window guides
- Moving furniture parts
- Storage bins
- Tools
- Moving parts (wood, metal, fabric, plastic, rubber)

TYPICAL PROPERTIES

(of wet product)

Color	translucent
Pigment	PTFE
Binder	thermoplastic resin
Carrier	Acheson SB-1 solvent
Diluent	Acheson SB-1 solvent
Consistency	liquid
Density	0.96 kg/l (8.0 lb/gal)
Flash point	4°C (40°F) Tag Closed Cup
VOC	778.0 g/l (6.5 lb/gal)
Theoretical Coverage	8.7 m ² /kg (340 ft ² /gal)

TYPICAL PROPERTIES

(as cured)

Color	translucent
Coefficient of friction	0.06 – 0.09 static
Service temperature	



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-continuous	82°C (180°F)
-intermittent	116°C (240°F)

METHOD OF USE

Surface Preparation

Substrates should be clean and dry. A light sanding with #120 grit sandpaper or Emery cloth followed by a solvent wipe and air dry is usually sufficient to key the surface properly. However, if maximum adhesion is required, the combination of cleaning and surface pre-treatment by mechanical or chemical means is essential. Suggested methods of pre-treatment for maximum adhesion are as follows:

Wood	: Sand lightly and wipe clean
Steel	: Degrease, sand or vapor blast and/or phosphate coat
Stainless steel	: Degrease, sand or vapor blast
Copper alloys	: Degrease, sand or vapor blast, dilute nitric acid drip, water rinse
Aluminum	: Degrease, sand or vapor blast
Rubber	: Degrease, using appropriate solvent
Plastics	: Degrease, using appropriate solvent and/or light sanding

Mixing

BONDERITE S-FN 329 ACHESON (known as EMRALON 329) is supplied as a concentrate. Mix **BONDERITE S-FN 329 ACHESON (known as EMRALON 329)** thoroughly. To dilute, add Acheson SB-1 solvent extender and mix thoroughly. Dilution ratios of 3:1 to 1:1 (product:diluent) are recommended. The 1:1 ratio is recommended for dip applications.

Application

BONDERITE S-FN 329 ACHESON (known as EMRALON 329) can be applied by conventional spray, dip, or brush techniques. For heavy coats it is better to make multiple light passes than to apply a single heavy coat, allowing a few minutes for air drying between passes. Electrostatic spray methods may also be used. If small parts are dip coated, they should be spun or tumbled to prevent formation of tears or runs and to minimize sticking. Coating thickness should not exceed 0.0007 inches (17.8 µm).

Application to plastic or fabric may cause the substrate to swell or soften temporarily. In most cases, plastic regains its original dimensions upon drying. Often the solvent action of the carrier etches the substrate, promoting increased coating adhesion.

The following equipment is recommended for spraying **BONDERITE S-FN 329 ACHESON (known as EMRALON 329)**:

- DeVilbiss Type MBC #510 GUN (or equivalent)
- #36 Nozzle
- 30-50 psi (2-4 metric atmospheres) air pressure

AFTER USE, FLUSH GUN WITH SB-1, ACHESON THERMOPLASTIC RESIN EXTENDER, TO PREVENT CLOGGING.

Curing

BONDERITE S-FN 329 ACHESON (known as EMRALON 329) coating will dry to the touch in about 5 minutes and is dry enough to handle in 20 to 30 minutes, depending of film thickness. Optimum hardness for operation is reached in two hours. Slight warming -- not over 150°F (66°C) -- will shorten the total curing period to approximately 15 minutes depending on thickness of application and substrate.



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Application during periods of high humidity may increase opacity or blush, and exposure to strong sunlight may cause darkening, but neither phenomenon adversely affects coating performance.

STORAGE/ HANDLING

Shelf life for this product is 24 months from date of qualification under original seal. Do not store at temperatures above 26°C (80°F). 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.

APPLICATION ASSISTANCE

Henkel's Application Specialists are available to assist you in production start-up with **BONDERITE S-FN 329 ACHESON (known as EMRALON 329)**. Visit our website www.henkelna.com/metals for more information and for the Acheson global location nearest you.

HEALTH & SAFETY

Please consult Material Safety Data Sheet.

NOTES

Flammable. PTFE decomposes slowly above 315°C (600°F) and emits small amounts of toxic vapors. Avoid contamination of cigarettes and other substances which may be burned and the resulting gases inhaled. Harmful if swallowed, inhaled, or absorbed through skin. May cause eye irritation. Wash thoroughly after handling. Keep away from heat, sparks, and open flame. Keep container tightly closed when not in use. Use with adequate ventilation. Avoid breathing vapor. See Henkel's Material Safety Data Sheet for proper first aid instructions.

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