Technical Process Bulletin

BONDERITE L-GP EB 020A ACHESON CONDUCTIVE COATING

(KNOWN AS DAG EB-020A)

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DESCRIPTION

BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A) is one of a series of coatings designed to provide controlled electrical properties. **BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A)** is a one-component thermosetting graphite coating of unusually high conductivity. **BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A)** is water-based and particularly useful in solvent-prohibited areas. The electrical conductivity and corrosion protection properties of **BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A)** make it suitable for alkaline battery applications where the current collector can requires protection. Easy and reliable spray application of **BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A)** allows for maximized production speeds and economical usage which results in lower component costs. Battery shelf life and performance are maximized to provide the required longevity of the battery and results in customer satisfaction.

FEATURES	BENEFITS
• Excellent adhesion to smooth surfaced nickel-plated steel	• Maintains a conductive surface on battery current collectors and optimal performance of the battery
• Excellent chemical resistance to KOH electrolyte	• Reduces corrosion and oxidation of nickel-plated steel
• Very low electrical resistance	• Improves the electrical contact between the cathode can and electrolyte
• Reliable spray application properties	• Maximal production output for low operating and component costs
• Water based coating	• Low VOC emissions that assist environmental compliance

TYPICAL APPLICATIONS

- Primary alkaline battery cells
- Conductive coating for metal substrates

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TYPICAL PROPERTIES (of wet product)	Color :	black
	Pigment :	graphite
	Binder :	thermoset
	Carrier :	water
	Viscosity :	500 - 1,000 mPa·sec
	Density :	1.12 – 1.16 k/l (9.4 - 9.7 lb/gal)
	Solids content by weight :	36-38%
	Flashpoint :	> 100°C (212°F)
	VOC :	81 g/l (0.68 lb/gal)
	Theoretical coverage :	9.68 m^2/kg @ 25 μm (449 ft^2/gal @ 1 mil)
	pH : :	9.5 – 9.8
	Color :	black
	Service temperature :	150°C (300°F)
	Sheet resistance :	40% solution, 10-30 ohms/sq/25 μm (1 mil)
	Before KOH exposure :	(point to point 1 inch)
	After KOH exposure :	40% solution, 72 hours @ 80°C (176°F) 10-30 ohms/sq/25 μm (1 mil)

METHOD OF USE

Surface Preparation

Make sure substrate is clean, dry and free from dust.

Mixing/Dilution/Blending

Do not dilute. **BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A)** is supplied ready-to-use. Before using, stir product thoroughly or use a slow speed propeller to mix until product is of uniform color and there is no settling. Do not use a paint shaker or other high-shear mixer as this could cause air entrapment.

Application

To apply, use standard airless production spray equipment. For small areas, use a suction cup gun. Production runs are best handled with propeller-agitated pressure pot systems. A dry coating weight of 10-20 mg per can is recommended for optimum electrical properties.

Cure Schedule

BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A) should be air flashed for 1-2 minutes at room temperature. Final cure is 3 minutes @ 300°F (150°C) or 1 minute @ 400°F (204°C), 30 seconds @ 450°F (232°C).

STORAGE/ HANDLING

Shelf life for this product is 12 months from date of qualification under original seal. Prolonged storage of **BONDERITE L-GP EB 020A ACHESON (known as DAG EB-020A)** at temperatures higher than 50°C (120° F) is not recommended. Do not allow to freeze. 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 L-GP EB 020A ACHESON (known as DAG EB-020A)**. Visit our website 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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