CORROLON II™

Product Code # SOL-XG10H

Pioneered For Hostile Environments:

Combining Non-Stick Performance With Chemical Protection And Anti-Galling Properties

- Reduces wear and friction on metal substrates
- Continous Operating Temperature 500°F (260°C)
- Non-stick characteristics reduce galling & seizing
- Thin coat application prevents undersize designs
- Enhanced erosion and corrosion protection
- Excellent chemical protection properties
- Allows engineers a variety of metal substrates
- Application allows custom masking to parts

CORROLON II™ is a premium resin bonded, one, two or three-coat finish with superior non-stick properties. This specially developed coating system protects metal substrates against wear, galling, friction, and corrosion. By impregnating metal, this coating (a part of the CORROLON family of industrial coatings) prevents operational plugging, inhibits galvanic response, reduces nuclei site formation, and dramatically improves corrosion resistance.

This coating permits engineers to specify protective enhancement without affecting critical tolerances in their designs. In addition, this superior coating has proven itself as an exceptional release against asphaltine scale buildup and H_2S /CO_2 service. Its chemical matrix bonds equally well to ferrous and non-ferrous materials, thereby enabling most industrial applications the flexibility to work in materials suited to their specific requirements.

Engineering Data & High Performance Characteristics:

CORROLON II™ is applied by means of a patented process that evenly coats metal surfaces and ensures a completely uniform coating for all of your specifications.

Multiple coating systems and corporate recognition colors are available.

Corrosion Protection

CORROLON II™ resists organic and inorganic compound attacks by means of a barrier (that can be applied in multiple coats) which impregnates the metal substrate. In environments where corrosion protection is important, process equipment and function-to-success parts are enhanced by reducing oxidization, fretting (vibration), galvanic corrosion, and increasing chemical resistance.

Hardness

CORROLON II™ has a hardness rating (ASTM D 785) of Rockwell 60 (+-2.0) and Pencil Hardness 3-4 H.

Custom Global Coatings for Extreme Applications

Solomon Coatings Ltd.

Custom Global Coatings

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Wear Resistance

As a pioneer in reducing wear to parts, ***CORROLON II***™ prevents asperities (metal surface peaks) from making physical contact. The coating acts as a cushion by spreading high point loads in bearings and reducing element fatigue. Another advantage of this coating is its ability to reduce "boundary lubrication failure", caused when equipment is frequently started and stopped; thereby allowing oil films to become too thin to function as a lubricant.

Thickness

CORROLON II™ provides an even application that enables protective enhancement without affecting critical engineering tolerances in designs. This coating system is uniform in thickness and range from 0.0007" to 0.0015" (+-0.0002"). In addition, high build requirements of up to 0.003" (+-0.0003") can be achieved with this versatile coating for re-works and tolerance build-ups. *This coating is post-process machinable.*

Temperature Specifications

CORROLON II™ operates very efficiently in extreme temperature environments. The thermosetting resins in this innovative coating enable it to perform in both a cryogenic and high temperature setting. Coated parts exhibit strength and non-stick properties, remaining highly flexible in demanding industrial use.

Continuous Operating Temp	500°F (260°C)
Intermittent Temperature	555°F (290°C)

Noise Reduction

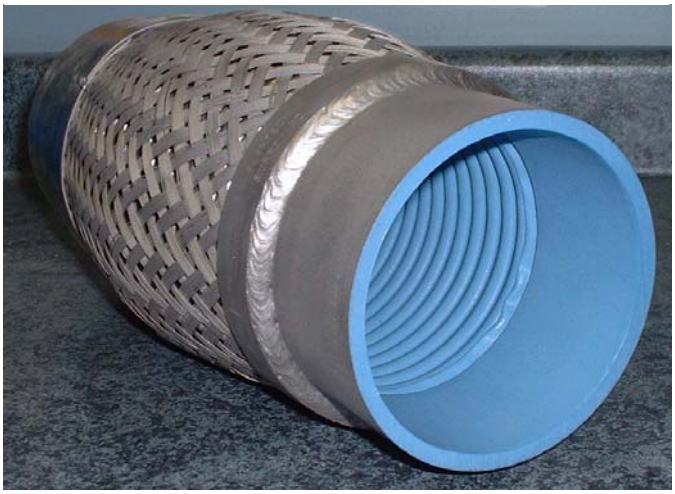
CORROLON II™ absorbs energy and transmits reduced resonance to surfaces under impact and in various conditions of industrial vibration. In most cases, noise is effectively dampened by coatings of 25 to 40 microns/0.001 to 0.0015 in.

Non-Stick (Release) Properties

Distinct from friction, release is the property of a metal surface that affects the ability of a substance to adhere to it. ***CORROLON II***™ has almost the lowest coefficient of friction known to man. This means that buildup of foreign particles (scale, ice, dirt, food, and the like) will be dramatically reduced on coated parts, resulting in minimal contamination and plugging. Mechanisms that require "fail-safe" operation under critical circumstances are greatly enhanced in security.

FDA /CFIA Compliance

Utilized in Foodservice processing equipment and cookware applications for its non-stick properties, ***CORROLON II***™ is FDA (US) and CFIA (Canada) compliant.



High Performance Applications

- Downwell Packer Systems
- Moulds
- Latch Couplings
- Military Applications
- Pipes & Tubing
- Nuts & Bolts
- Fasteners and Threaded Parts
- Mining Pumps
- Processing Rollers
- Gears & Springs
- Actuators
- Foodservice Units & Cookware
- Aerospace & Aeronautical
- Industrial Housings
- Blades
- Medical Instraments
- Valves
- Fail-Safe Mechanisims

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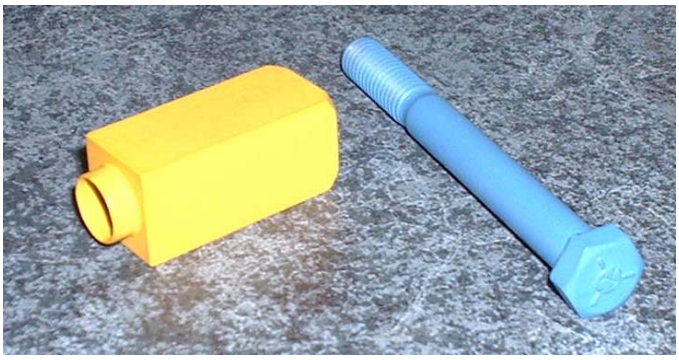
Scale & Asphaltine Resistance

Nuclei site formation is a common problem in both oil and industrial applications. ***CORROLON II™*** provides a barrier between the hostile molecules and the protected substrate. An unprotected substrate is prone to scale and corrosion attack.

Sealing

CORROLON II™ in thicker applications deforms appropriately under high pressure to form a tight thread-to-thread or seal-to-seal union, resulting in lower seating torques as much as 60 percent.



CORROLON II™ applied to threaded bolts and industrial parts for anti-galling protection and environmental temperature conditions.

CORROLON II		
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TECHNICAL MANGER:	R. HUIZINGA	
APPROVAL BY:	M. FEARON	
REVISION 3.1.1	ISO DATA SHEET #737-B-3	

Chemical Corrosion Guideline Table:

Chemical	Concentration %	Hours	Effect on Coating Function
Water			
Deionized—Boiling	100	1000	none
Salt (immersed)	30	4000	none
Salt (Spray)	5	1000	none
Tap—250°F (120°C) @ 10,000 psi	100	24	none
Acids			
Hydrochloric	36	24	none
Hydrochloric	15	150	slight
Hydrochloric	2 pH	300	none
Hydrochloric 125°F (50°C)	2 pH	300	none
Sulfuric	25	1500	none
Nitric	35	24	none
Picric	saturated solution	120	none
Base			
Caustic	2	24	none
Caustic	100	336	slight
Caustic	12.5 pH	150	slight
Caustic	9.5 pH	300	none
Caustic 125°F (50°C)	9.5 pH	300	slight

Chemical	Concentration %	Hours	Effect on Coating Function
Solvents			
Acetone	100	1500	none
Benzene	100	1500	none
DMAC	100	1500	none
Ethanol	100	1500	none
Fluorocarbons (12, 22, 113)	100	1000	none
MEK	100	120	none
Methanol	100	1500	none
Methylene Chloride	100	1500	none
Perchlorethylene	100	1500	none
Phenol	5	120	none
Toluene	100	120	none
Xylene	100	1500	none
Other Fluids			
Skydrol (hydraulic fluid)	100	1500	none
JP-4 (jet fluid)	100	1500	none
Break Fluid (auto)	100	1500	none
H_2O + gas at 250°F (120°C), @ 2000 psi	79% CH_4, 6% CO_2, 15% H_2S	24	none

* All data reflected above was conducted in room temperature and assumes pinhole-free coating film.

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