HART

SURE SEAL O-RING UNIONS

Revised 2019-05-02

Dielectric Polymer Composite Coating

HART Dielectric Insulating Unions

HART Industrial Dielectric O-Ring Unions are engineered to provide the most effective and efficient method of preventing electrolytic deterioration. The Union design and thermo-baked epoxy polymer coating provides insulation against galvanic corrosion and current flow eliminating any stray corrosion. HART's Dielectric Coating features ANSI/NSF-61 Approval for potable water applications.

NSF

Certified to NSF/ANSI 61

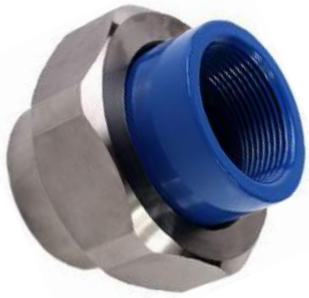
All HART Unions are made in the USA!

Coating Features (ASSE Standard #1079-2005):

- Excellent resistance to wear, abrasion, and shipping.
- Provides resistance to rust/corrosion per ASTM B-117 Salt Fog Tests.
- Operating temperatures from -100*F to +400*F.
- Superior adhesion to a variety of substrates including Carbon Steel, Brass, Copper, Stainless Steel, Monel, and Titanium.

Physical Properties:

Typical Coating Thickness:	**3-6 mil**	
Volume Resistivity (DC Voltage)	**1.1 x 10^{15} ohm-cm**	**(ASTM D257)**
Pencil Hardness:	**F**	**(ASTM B3363)**
Gloss Finish:	**High**	
Cross cut	**Gt 0**	**(DIN EN ISO 2409)**
Impact resistance	**> 5 Joule**	**(DIN 30677-2 / ASTM D2794)**
Abrasion resistance	**< 40 mg**	**(ASTM D4060 / CS-17, 1000 g, 1000 cycles)**
Shear Adhesion	**> 35 MPa**	**(ASTM D1002)**
Heat aging in air (90 days), water	**fulfilled**	**(DIN EN 14901)**
Weathering (Xenon test), 100 days	**pass**	**(ASTM D2596-99)**
Salt spray resistance, 2000 h	**No blistering, no loss of adhesion**	**(BS 3900:F4)**
Salt spray test, 4000 h	**no under-rusting on the cut**	**(DIN EN ISO 9227 - steel substrate)**
Water absorption, 100 d, 74 °F (23°C)	**pass**	**(AS/NZS 3862)**
Chemical resistance	**fulfilled**	**(EN 598)**



Additional Information

Drinking Water Approval:	**ANSI/NSF 61 Drinking Water System Components - Health Effects, NSF**

Questions? Call us at 1-800-769-0503. Our Customer Service and Engineering Teams are available to assist you with any needs!

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USA

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Made in USA

HART Dielectric Coating Environmental Resistance Data

Chemical	Duration	Result	Chemical	Duration	Result
Acetic acid 10 %	2 years	no change	Lactic acid 10 %	1 week	no change
Ammonia 10 %	2 years	no change	Methanol	1 week	no change
Ammonia 36 %	1.5 years	no change	Methyl tert-butyl ether 100%	6 months	softening
Antifrogen L 50 %	1 year	no change	Nitric acid 10 %	1.5 years	no change
Antifrogen N 50 %	1 year	no change	Nitric acid 25 %	1 year	no change
Benzol	1 month	no change	Oxalic acid 5 %	6 months	no change
Bore oil	1 year	no change	Palm oil at 90° C	7 days	no change
Butanol	6 months	no change	Petrol	2 years	no change
Carbon tetra chloride	1 year	no change	Petroleum	1 year	no change
Caustic soda sol. 10 %	2 years	no change	Phosphoric acid 10 %	2 years	no change
Caustic soda sol. 50 %	2 years	no change	Phosphoric acid 50 %	2 years	no change
Chlorine cleanser and disinfectant	1.5 years	no change	Potassium hydroxide 10 %	1 year	no change
Citric acid	2 years	no change	Potassium hydroxide 25 %	1 year	no change
Deicer Safeway KF HOT	1 year	no change	Potassium hydroxide 50 %	1 year	no change
Deicer Safeway SF (solid)	1 year	no change	Propanol	1 year	no change
Deicer Safewing MP II 1951	1 year	no change	Sea water	2 years	no change
Dichromatic potassium 10 %	1 year	no change	Sodium acetate 10 %	1 year	no change
Diesel	2 years	no change	Sodium carbonate 20 %	1 year	no change
Engine oil SAE 20	1 year	no change	Sodium hypochlorite (15 % Cl2)	10 weeks	no change
Ethanol	1 year	no change	Sodium chloride 2 %	1 year	no change
Ethyleneglycole	1 year	no change	Sodium chloride 20 %	1 year	no change
Formaldehyde 37 %	6 months	no change	Sodium formiate 10 %	1 year	no change
Formic acid 5 %	2 years	no change	Suds 1 %	1 year	no change
Formic acid 10 %	1.5 years	no change	Sulphuric acid 2 %	2 years	no change
Glycerol	1 year	no change	Sulphuric acid 20 %	2 years	no change
Glysantin	1 year	no change	Sulphuric acid 50 %	2 years	no change
Hydrochloric acid concentrated	1 week	no change	Tartaric acid 5 %	1 year	no change
Hydrochloric acid 10 %	2 years	no change	Toluol	1 year	no change
Hydrochloric acid 25 %	1.5 years	no change	Turpentine oil	1 year	no change
Hydrofluoric acid 1 %	1 day	no change	Urea 10 %	1 year	no change
Hydrogen peroxide 3 %	1 year	no change	Urine	1 year	no change
Hydrogen peroxide 10%	1 year	faded	Xylol	1 year	no change

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