

PowerTEK™

Protective Coating

Protective Solutions

ArmorTEK™ is ATI's proprietary formulated coating designed to protect the PowerTEK™ Line of portable power distribution systems.

1600 Amp Portable GE ATS with ArmorTEK™



Features & Benefits:

- High resistance to heavy impacts, scratching, gouging and general abrasion protects the frame and helps to enhance its working life
- Highly effective textured surface that is slip resistant and easy to grip
- Permanently water and air-tight seal which prevents rust and corrosion
- Will not crack, peel or warp even when subjected to high and low temperatures. This is a significant benefit to powder-coated systems which chip, crack and peel when exposed to harsh working environments
- ArmorTEK™ is highly chemical resistant making it suitable for areas of use normally requiring galvanization

ASTM Physical Testing:

Test Description	ASTM	Result
Hardness (Shore D)	D-2240	55±5
Tensile Strength (psi)*	D-412	2100 – 2800
Elongation (%)*	D-412	50 – 80
Flexural Modulus (psi)	D-790	2400 – 2800
Taber Abrasion Resistance (mg of loss/1000 cycles) CS17 Wheel: 1000 grams weight	D-4060	25 – 30
Tear Resistance (pli)* Die C	D-624	200 – 250
Water Absorption (%) – 24 hours	D-570	≤1.6%
Dielectric Strength (volts/mil)	D-149	300
Volume Resistivity (ohm/inches)	D-257	6 X 10 (12)
Dielectric Constant (MHz)	D-150	5.4
Dissipation Factor (MHz)	D-150	0.058
Cathodic Disbonding	G-8	Pass

*Properties were checked of ArmorTEK™, 1/8" (125 mils), (3.18 mm) thick stock.

CHEMICAL RESISTANCE CHART

TECHNICAL NOTE: The PowerTEK™ line of portable power distribution systems often have exposure to various chemicals. Our ArmorTEK™ solution has been specially formulated for exceptional resistance to a wide variety of chemicals and offers very good resistance to a number of chemicals commonly found in industrial applications. The following chart summarizes the chemical resistance of these products based on immersion testing. A guide to interpreting the ratings is shown below.

For applications involving chemicals not listed below, please contact your ATI representative for further information. We are continually adding to our chemical resistance database. If necessary, we can assist in conducting chemical exposure testing with the ArmorTEK™ system. **It is important to note that higher service temperatures, length of exposure time and other factors can significantly influence the performance of the ArmorTEK™ system. Each potential environment should be carefully evaluated on a case by case basis. Testing coupons with the actual chemical in question is also highly recommended.**

Ratings Interpretation	
A	:Suitable for temporary storage or immersion for up to 3 months. Less than 10% weight gain or loss of hardness after full immersion for 30 days at 75°F.
B	:Suitable for temporary exposure to chemical splash or spill, such as secondary containment. Less than 20% weight gain or loss of hardness after full immersion for 3 days at 75°F.
NR	:Not recommended for service. Noticeable chemical degradation with more than 20% weight gain and substantial loss of strength and hardness after immersion for 3 days at 75°F.

Chemical Medium	Rating
Acids	
Hydrochloric, 15%	B
Hydrochloric, 30%	NR
Sulfuric, 20%	B
Sulfuric, 60%	NR
Phosphoric, 24%	B
Acetic, 50%	B
Alkalis	
Detergents	A
Soaps	A
Sodium Hydroxide, 25%	*
Sodium Hydroxide, 50%	*
Oxidizers	
Bleach (5% Sodium Hypochlorite)	B
Sodium Hypochlorite, 13%	B
Salts	
Sea Salt, 25%	A
Ferric Sulfate, 50%	A
Ferric Chloride, 35%	A
Sodium Chloride	A
Petroleum Products	
Diesel	A
Gasoline	NR
Hydraulic Fluid	A
JP8	A
Machine Oils	A
Motor Oil	A

Chemical Medium	Rating
Solvents	
Chlorinated Solvents	NR
Denatured Alcohol	NR
D-Limonene	NR
Ketones (Acetone, MEK)	NR
Xylene	NR
Water & Wastewater	
Raw Water	A
Distilled Water	A
Sea Water	A
Hydrogen Sulfide Gas	A
Methane Gas	A
Raw Sewage	A
Others	
Animal Grease/Fats	A
Antifreeze Solution	A
Castor Oil	A
Diethylene Glycol	A
Diethyl Toluene	B
Diocyl Phthalate	A

Limitations: The data on this chart must be considered as general guidelines only. It contains information to the best of our knowledge and testing. However, such immersion data is subject to varying interpretations.

6980 W. Warm Springs Rd.
Suite 160
Las Vegas, Nevada 89113
(702) 576-9200 (office)
(702) 576-9788 (fax)

1301 Whitney Road
Anchorage, AK 99501
(907) 344-4284 (office)

745 NW Mt. Washington Dr.,
Suite 108
Bend, OR 97701
(541) 706-9222 (office)
(541) 610-1754 (fax)

353 Christian St.
Suite #4
Oxford, Connecticut 06478
(203) 266-2006 (office)
(203) 266-2105 (fax)

www.atielectrical.com

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