# LIDA® Rod Anodes

# **Cathodic Protection**

**LIDA® Rod Anodes** are comprised of a titanium substrate with a mixed metal oxide coating. The mixed metal oxide is a crystalline, electrically-conductive coating that activates the titanium and enables it to function as an anode.

**Anode Life** — Due to the extremely low consumption rates and dimensional stability of mixed metal oxide anodes, the electrical resistance of LIDA® Rod Anodes remain essentially constant with time. The high current density capacity of De Nora mixed metal oxide anodes has the

## **APPLICATIONS**

- Process Vessels
- Water Condensor Boxes
- Heat Exchangers
- Water Intake Structures

#### **FEATURES**

- High Current Output
- Low Coating Wear Rate
- Five Year Product Warranty
- Also available as Rod Anode Assemblies

#### **BENEFITS**

- Lower Cost Per Ampere Year
- Constant Electrical Resistance
- No Hassles

added advantage of allowing high current overloads for initial polarization without causing harm to the anode. Anode life projections are accurately made using the lifetime graphs (See Figures 1-7 on back).

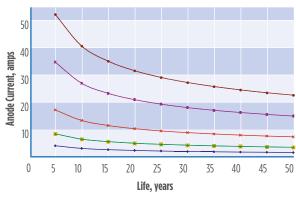
**De Nora LIDA® Rod Anodes** are available in the following standard sizes: 1/8" x 4' • 1/4" x 4' • 1/2" x 4' • 3/4" x 4' Selection of the anode coating is based on operating environment: **FW** Freshwater or Brackish Water **SWT** Seawater





Standard Rod Assemblies				
Standard Rod Assemblies	Freshwater or l	Brackish Water	Sea Water E	nvironments
Part Number	FA-ROD 0.5FW	FA-ROD 0.75FW	FA-ROD 0.5SW	FA-ROD 0.75SW
Max. current output	1.6 amps	2.4 amps	9.7 amps	14.6 amps
Rod Diameter	0.5 inch (1.27 cm)	0.75 inch (1.91 cm)	0.5 inch (1.27 cm)	0.75 inch (1.91 cm)
Total Length	24 inch (61 cm)	24 inch (61 cm)	24 inch (61 cm)	24 inch (61 cm)
Active Length max-User specified	16 inch (41 cm)	16 inch (41 cm)	16 inch (41 cm)	16 inch (41 cm)
FRP Length	6 inch (15 cm)	6 inch (15 cm)	6 inch (15 cm)	6 inch (15 cm)
Maximum water velocity	2ft/sec (.6 M/sec)	5ft/sec (1.5 M/sec)	2ft/sec (.6 M/sec)	5ft/sec (1.5 M/sec)

# Maximum Current for LIDA® Rod Anodes (life in years)



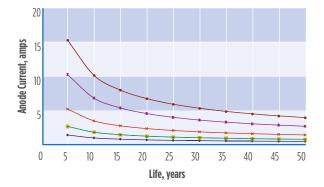
LIDA<sup>®</sup> Rod Anode Life in Sea Water

0

→ 1/8 Rod, STD	🛨 1/4 Rod, STD	1/2 Rod, XL
1/8 Rod, XL	1/4 Rod, XL	🛶 3/4 Rod, XL

STD = standard	Lifetimes for the 1/4" STD and the
XL = extended life	1/8" XL are equivalent.

# LIDA<sup>®</sup> Rod Anode Life in Mud

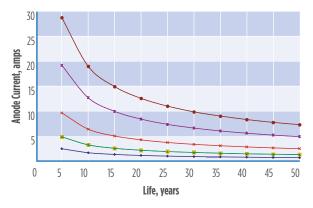


← 1/ <sub>8</sub> Rod, STD	→ 1/4 Rod, STD	1/2 Rod, XL	
← 1/ <sub>8</sub> Rod, XL	→ 1/4 Rod, XL	3/4 Rod, XL	

STD = standard Lifetimes for the 1/4" STD and the 1/8" XL are equivalent. XL = extended life

0

### LIDA<sup>®</sup> Rod Anode Life in Fresh Water



	→ 1/4 Rod, STD → 1/4 Rod, XL	
CTD = standard	Lifotimor	for the 1/4" CTD and

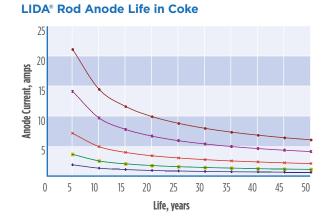
STD = standard XL = extended life

Lifetimes for the 1/4" STD and the 1/8" XL are equivalent.



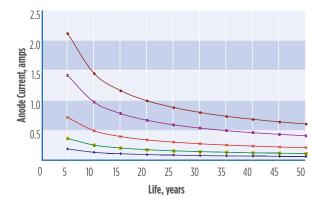
Life, years

→ 1/8 Rod, STD → 1/8 Rod, XL	1/4 Rod, STD 1/4 Rod, XL	· · · · · · · · · · · · · · · · · · ·
STD = standard XL = extended lif		for the 1/4" STD and the requivalent.



	1/4 Rod, STD 1/4 Rod, XL	· · · · · · · · · · · · · · · · · · ·
STD = standard XL = extended lif		for the 1/4" STD and the re equivalent.

## LIDA<sup>®</sup> Rod Anode Life in Sand



1/ <sub>8</sub> Rod, XL	1/4 Rod, XL	<sup>3</sup> /4 Rod, XL
STD = standard	Lifetimes	for the 1/4" STD and the
XL = extended life	fe 1/8" XL a	re equivalent.

----- 1/8 Rod, STD ----- 1/4 Rod, STD ------ 1/2 Rod, XL



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