DSA (Dimensionally Stable Anode) for Electro-Coating

PT-DSA

Advantage of DSA

Extremely high corrosion resistance with low electrical resistance
This anode material consists of basically two constituency

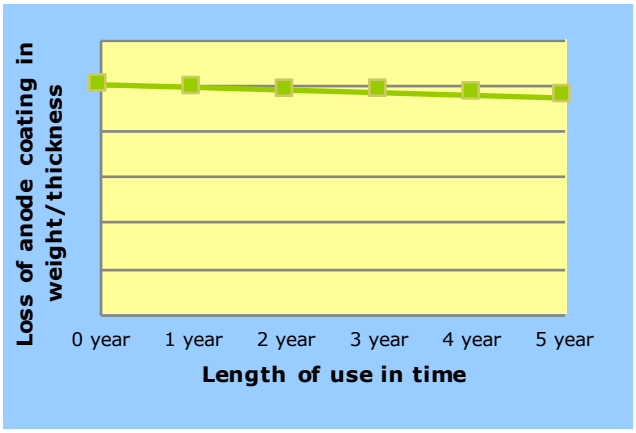
(1) Precious metal oxide coating on the substrate
Precious metal oxides, such as iridium oxide and ruthenium oxide, show very high corrosion resistance combined with very low electrical resistance, making it ideal protective coating of anode for heavy duty application

(2) Titanium pipe as substrate
Titanium as substrate provides very ideal bonding with these oxide coating when treated by special propriety methods.

Environment-friendly material
Conventional Stainless anode dissolves under use, giving out heavy metals such as Fe, Ni, Cr. DSA on the other hand gives out none of these harmful heavy metals

Prolong anode membrane life
Conventional stainless steel anode dissolves and Fe, Ni, Cr metals deposits on the anode membrane surface as oxides, building gradually high electrical resistance. If DSA is used for membrane electrode it releases no such heavy metals oxides and membrane has much longer useful life

Easy handling
Weigh only 1/5 compared with Stainless steel anode. It is also mechanically stronger than some ceramic anodes which either break or crack..



Comparison with SUS316

	SUS316	PT-DSA
Material	SUS316	Titanium substrate with iridium oxide
Erosion rate	5～200×10^{-6}g/C	1～10×10^{-8}g/C
Anolyte conductivity	Less than 1000μS / cm	1000～3000μS / cm
Heavy metal in anolyte	Cr,Ni,Fe	
Life	2～5 yrs.	7～10 yrs.
Mechanical strength	Very high	Very high
Size	48.6Φ Tube	27.2Φ Tube

※Life of anode depends on operating condition. The given number should not be taken as guaranteed.

DSA (Dimensionally Stable Anode) for Electro-Coating

PT-DSA

Application

Used as bare electrode

By installing proper ratio of both membrane electrodes and bare electrodes, acid level in the paint can be balanced ideally. If too much of PT-AN (acid removal type) is used the acid level in the tank gets too low. Bare electrode can provide electrical current without removing acid, thus introduction of bare anodes help balance the acid level.

Use as anode of membrane electrode

With PT-LAN (Low acid removal type) : Prevention of sludge build on the anode surface + acid balancing

With PT-AN (Acid removal type) : Possible to run with very high anolyte concentration to reduce anolyte effluent.

Versatile anode positioning

Light weight combined with mechanical strength make it possible to install anode in more variety of positioning not possible before.

For coating highly demanding jobs such as car bodies, it is a big advantage to have capability of anodes installing in various positioning so to attain desired E-coat film at various location on the bodies.

POLYTECHS, INC.

URL:www.poly-techs.co.jp

Head Office 〒192-0045 2-5-1,Oowada-machi,Hachiouji-city,Tokyo,Japan
Tel:(+81)0426-31-4801/Fax:(+81)0426-31-4802

Nagoya Branch 〒467-0853 22-24,Utihama-chou,Mizuho-ku,Nagoya-city,Aichi,Japan
Tel:(+81)052-811-2373/Fax:(+81)052-811-2383

Osaka Branch 〒553-0002 #101,3-10-13,Sagisu,Fukusima-ku,Osaka-city,Osaka,Japan
Tel:(+81)06-4799-8860/Fax:(+81)06-4799-8865

Yamanashi Factory 〒408-0002 1593,Kitawari,Takane-chou,Hokuto-city,Yamanshi,Japan
Tel:(+81)0551-47-4781/Fax:(+81) 0551-47-4782

China Office 〒215007 Room 424, Jinghui Tower, 277 Yangdong Rd.
Suzhou Industriral Park, Suzhou, China
Tel:(+86)512-6292-7721 Fax:(+86)512-6292-7720