

# **Distek™** (ArmorGalv<sup>®</sup>) Thermal Diffusion Zinc Coating

The better way to protect your products against corrosion









# We help manufacturers cut their costs dramatically by allowing them to make their anti-corrosion coating in-house with green, easy-to-operate TDG coating lines.





#### 1993

Dr. Shtikan won a grant from the Israel Chief Scientist and started the development of the Distek<sup>™</sup> technology.

#### 1995

Completion of the development. The first Distek<sup>™</sup> coating line has been sold to a Russian company.

#### 2007

The establishment of **Distek North America** and the development of the ArmorGalv® process.



#### 2014

The establishment of Distek China and sale of the first Distek<sup>™</sup>/ArmorGalv® lines in the Far East.

#### 2022

The company continues to expand while constantly improving and working on new developments.

# Distek™ (ArmorGalv<sup>®</sup>) worldwide





Since finishing the technology development in 1995, we established dozens of licensees worldwide, including in the US, Europe, China, Japan, South Africa, Russia, Canada, Australia, Israel, and Turkey.

### Industries



Marine



Oil & Gas



Construction



Metro





#### Railway

#### Automotive







Energy

# Among Our Clients







We will plan, design, and produce the coating line most suitable for your company's needs.

A unique mixture developed by the Distek company consists of zinc powder and other materials.

An integral part of the technology is the passivation process; involves patented chromate-free solutions developed by the Distek company.



## Powder

# Materials

## Advantages

Our unique coating process performs much better results in every significant aspect.





Corrosion resistance up to 3000 hours in SST



Guarantees uniform thickness even on tubes and internally threaded parts.



## No need for a chemical process before coating

### Cost -Effectiveness

Save energy, no wastewater, no additional expansions on environmental issues

# Completely Ecologically Clean

Won the Pollution Prevention Award (MVP2), presented by the US EPA.

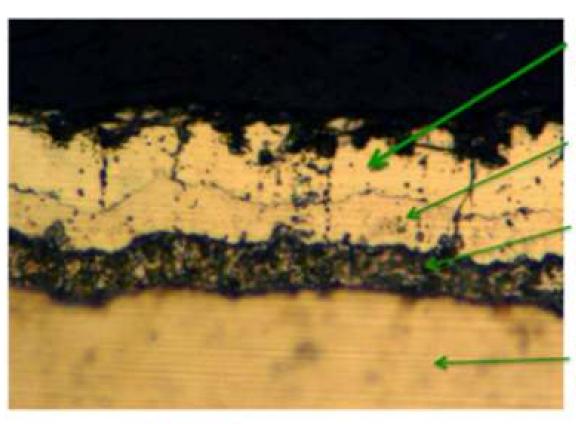
Distek lines include a water-cleaning system that recycles the water.



### No acids or toxic elements, and nothing is thrown into the sewer.

## No Wastewater

# Distek<sup>™</sup>/ArmorGalv<sup>®</sup> VS. HDG



#### ArmorGalv<sup>®</sup> cross section

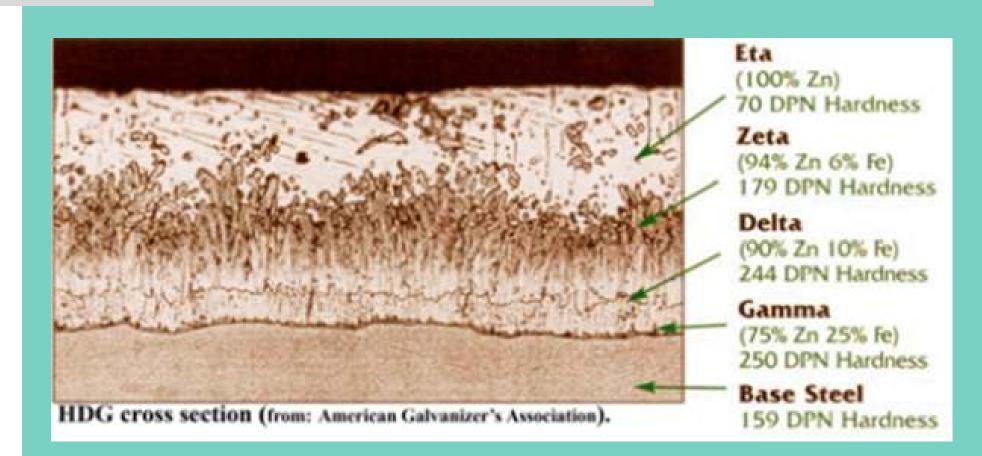
*Distek*<sup>™</sup>(*ArmorGalv*<sup>®</sup>) has a 100% intermetallic alloy structure, with a significant Gamma layer and a more iron-rich structure than HDG. The ArmorGalv® layer is hard and abrasion-resistant, while the richer iron content also provides superior corrosion resistance.

Zeta (7%Fe -93%Zn) Hardness 310HV(31HRC)

Delta (25%Fe-75%Zn) Hardness 375HV (38HRC)

Gamma (50%Fe-50%Zn) Hardness 605HV (58HRC)

Base steel 100% Fe Hardness 316HV (32HRC)



HDG, most of the time, has a pure zinc layer that is more than half of the coating. The intermetallic alloy layers are much thinner (particularly the very thin Gamma, which is the hardest and most corrosionresistant) and poorer in Iron content.



#### Distek<sup>™</sup>/ArmorGalv<sup>®</sup>

### **Superior Corrosion** Resistance

No Hydrogen **Embrittlement Failures** 

**High Precision and** Uniformity

**Environmentally** Friendly



**Failures** 

Friendly



### **Lower Corrosion** Resistance



# Hydrogen Embrittlement

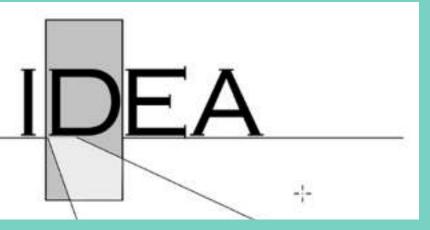


### **Poor Precision and** Uniformity

# **Not Environmentally**



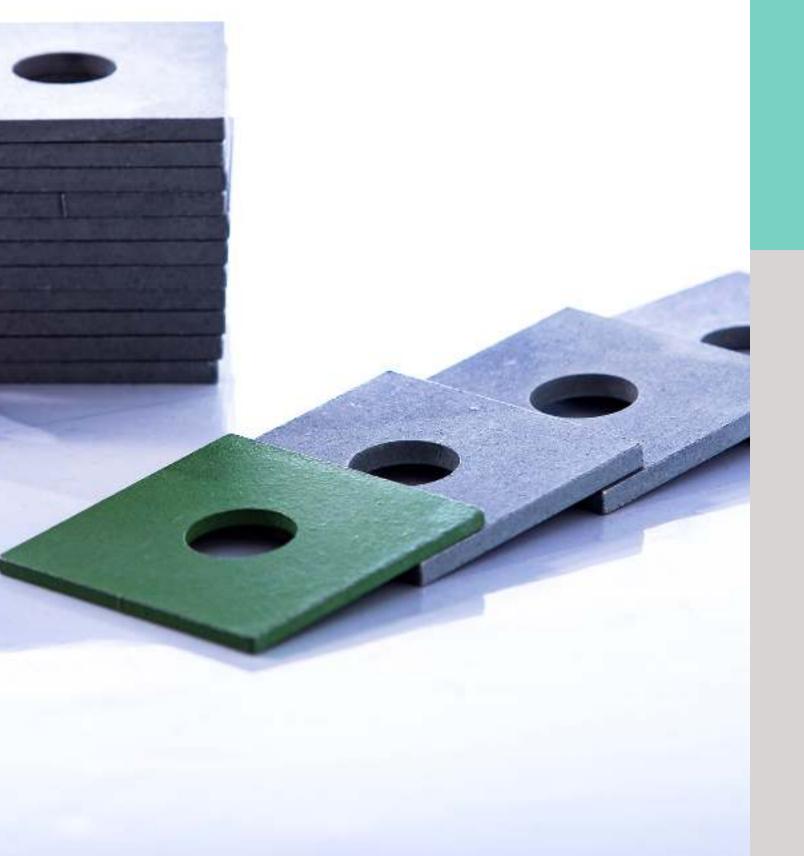
Innovations Deserving **Exploratory Analysis Programs** 



performance in severe salt environments with and without abrasion show a 5 to 10 times improvement in performance with the TZD-coated steel versus HDG steel. Steel coated



Distek<sup>™</sup>/ArmorGalv<sup>®</sup> coating conforms to the following standards:



# **Standards**

• ASTM A 1059A/1059M - 08

• BS-EN 17668:2016

• Russian standard GOST R 9.316 - 2006

Israeli standard 4271

# **How it** Works?



We plan, design, and manufacture the line most suitable for your products and needs.

**STEP 2** 



We ship, assemble, start-up the line, and train the local staff.

#### **STEP 3**

During the years, we supply the patented powder and materials and technical support and advice.







Once a year, we visit our licensee place, ensure everything is done correctly, and renew the certification to use the name Distek<sup>™</sup>/ArmorGalv®.





technology is the ideal solution.



In a world of growing and uncompromising demand for better quality on the one hand, while preserving the environment on the other, the Distek<sup>™</sup> / ArmorGalv<sup>®</sup>