

THERMAL DIFFUSION GALVANIZING

Extend the Application
Life of Pole Line
Hardware with
ArmorGalv®



THERMAL DIFFUSION GALVANIZING

WHAT IT IS

Thermal Diffusion Galvanizing (TDG) is a method of applying a uniform, sacrificial, zinc iron alloy coating using a metallurgical vapor diffusion process. TDG gives hardware a longer life in corrosive environments than hot-dip galvanizing (HDG).

WHAT WE OFFER

Hubbell partnered with the foremost supplier in the market. Using DISTEK NA's proven ArmorGalv® formulation and Hubbell manufacturing expertise, you can be confident that our TDG products will be manufactured with consistent process control and regular testing in our ISO 9001 manufacturing facilities.

BENEFITS

- TDG offers performance approaching stainless without the exorbitant price
- Unlike HDG, internal threads are coated to give the product total protection from corrosion
- Eco-friendly manufacturing
- ArmorGalv® coating resists damage during installation and exhibits self healing properties



ArmorGalv®

SALT FOG TESTING OF ARMORGALV VS. HOT DIP GALVANIZED



HDG at 3000 hours
(nut seized/locked)

ArmorGalv at 3000 hours
(nuts freely turn)

HDG at 3000 hours
(nut seized/locked)

ArmorGalv at 3000 hours
(nuts freely turn)

PRODUCT COMPARISON

IMPROVED PERFORMANCE OVER HDG. | AFFORDABLE ALTERNATIVE TO STAINLESS.

	HDG	ArmorGalv	SPRAY COATING	STAINLESS STEEL
ANSI STRENGTH REQUIREMENT	+	+	+	+
CORROSION RESISTANCE	+	+++	+++	+++
TORQUE EVALUATION	+	+	+	+
FUNCTIONALITY OF THREADS	-	+	+	+/-
COST	\$	\$\$	\$\$\$	\$\$\$\$

ArmorGalv® is a corrosion resistant solution with value derived from performance and cost relative to stainless steel.

ATTRIBUTES

- Improved corrosion performance over HDG
- Negligible changes in material properties
- More uniform coating thickness compared to HDG
- Hydrogen embrittlement free

PERFORMANCE

- Extends life of products over HDG, approaching stainless steel
- Anti-galling properties
- Meets ASTM 1059
- Exceeds ASTM 123 and 153
- ROHS, REACH, PROP65 compliant
- Abrasion resistant

ECO-FRIENDLY

- ROHS, REACH, PROP65 compliant
- Acid-free surface prep
- Non-toxic coating
- Virtually zero-waste system
- Replacement for Cadmium and other toxic coatings that are used to prevent galling
- Greener supply chain

BOLTS - MACHINE



Features

- Thermal diffusion galvanized corrosion protection
- Includes one assembled square nut
- Cone point on threaded end
- Thermal Diffusion Galvanized steel per ArmorGalv® and ASTM 1059 requirements

1/2" THREAD DIAMETER (1/2-13UNC) | 7,800 LBS. RATED TENSILE STRENGTH

Catalog Number	Length	Minimum Thread Length	Approx. Ship Wt. per Each
8705TDG	5"	3"	0.35 lbs.
8706TDG	6"	3"	0.40 lbs.
8707TDG	7"	3"	0.48 lbs.
8708TDG	8"	4"	0.49 lbs.
8709TDG	9"	4"	0.57 lbs.
8710TDG	10"	4"	0.60 lbs.
8712TDG	12"	4"	0.71 lbs.
8714TDG	14"	6"	0.73 lbs.
DF2B16TDG	16"	6"	0.85 lbs.

ANSI C135.1 Specification

5/8" THREAD DIAMETER (5/8-11UNC) | 12,400 LBS. RATED TENSILE STRENGTH

Catalog Number	Length	Minimum Thread Length	Approx. Ship Wt. per Each
8802TDG	2"	1 1/2"	0.36 lbs.
8804TDG	4"	3"	0.57 lbs.
8805TDG	5"	3"	0.60 lbs.
8806TDG	6"	3"	0.69 lbs.
8807TDG	7"	4"	0.75 lbs.
8808TDG	8"	4"	0.78 lbs.
8809TDG	9"	4"	0.88 lbs.
8810TDG	10"	6"	0.93 lbs.
8812TDG	12"	6"	1.08 lbs.
8814TDG	14"	6"	1.23 lbs.

ANSI C135.1 Specification

3/4" THREAD DIAMETER (3/4-10UNC) | 18,350 LBS. RATED TENSILE STRENGTH

Catalog Number	Length	Minimum Thread Length	Approx. Ship Wt. per Each
PS8902TDG	2"	1 3/4"	0.65 lbs.
PS8906TDG	6"	3"	1.09 lbs.
DF4B7TDG	7"	3"	1.18 lbs.
8908TDG	8"	4"	1.26 lbs.
8910TDG	10"	4"	1.54 lbs.
8912TDG	12"	6"	1.62 lbs.
8914TDG	14"	6"	1.88 lbs.

ANSI C135.1 Specification

BOLTS - OVALEYE



Features

- Thermal diffusion galvanized corrosion protection
- Includes one assembled square nut
- Cone point on threaded end
- Internal eye dimensions, 7/16" x 1-1/4" x 1-5/8"

Material

- Thermal Diffusion Galvanized steel per ArmorGalv® and ASTM 1059 requirements

5/8" THREAD DIAMETER (5/8-11UNC) | 12,400 LBS. RATED TENSILE STRENGTH

Catalog Number	Length Under Eye	Thread Length	Eye Dimensions	Approx. Ship Wt. per Each
29956TDG	6"	4"	7/16" x 1 1/4" x 1 5/8"	1.00 lbs.
29958TDG	8"	4"	7/16" x 1 1/4" x 1 5/8"	1.04 lbs.
29959TDG	9"	4"	7/16" x 1 1/4" x 1 5/8"	1.13 lbs.
29960TDG	10"	6"	7/16" x 1 1/4" x 1 5/8"	1.22 lbs.

Tensile strength per IEEE C135.80

NUT - REGULAR



Features

- Thermal diffusion galvanized corrosion protection
- Threads are sized for ANSI C135.1 bolts
- Large flat surface for maximum wrench contact
- Internally cut threads are zinc coated with TDG process

Material

- Thermal Diffusion Galvanized steel per ArmorGalv® and ASTM 1059 requirements

Catalog Number	Accommodates Bolt Size	Threads per Inch	Width	Thickness	Approx. Ship Wt. per Each
55083PTDG	1/2"	13	13/16"	9/16"	0.08 lbs.
55084PTDG	5/8"	11	1"	35/64"	0.10 lbs.
55085PTDG	3/4"	10	1 1/8"	21/32"	0.14 lbs.

WASHERS - ROUND AND SQUARE

Features

- Thermal diffusion galvanized corrosion protection
- Washers protect wood components from crushing loads
- Curved or flat profile

Material

- Thermal Diffusion Galvanized steel per ArmorGalv® and ASTM 1059 requirements

ROUND WASHERS

Catalog Number	Accommodates Bolt Size	Size	Hole Dia.	Approx. Ship Wt. per Each
PS6803TDG	1/2"	1 3/8" dia. x 12 GA. (0.1046")	9/16"	0.045 lbs.
6805TDG	5/8"	1 3/4" Dia. x 10 Ga. (0.1345")	11/16"	0.085 lbs.
6806TDG	3/4"	2" Dia. x 9 Ga. (0.1495")	13/16"	0.118 lbs.



ASME B18.22.1 Specification

SQUARE CURVED WASHERS

Catalog Number	Accommodates Bolt Size	Size	Hole Dia.	Approx. Ship Wt. per Each
PS6822TDG	5/8"	2 1/2" x 2 1/2" x 3/16"	11/16"	0.36 lbs.
682212TDG	3/4"	3" x 3" x 1/4"	13/16"	0.66 lbs.



NEMA PH10 Specification

SQUARE WASHERS

Catalog Number	Accommodates Bolt Size	Size	Hole Dia.	Approx. Ship Wt. per Each
6811TDG	1/2"	2" x 2" x 1/8"	9/16"	0.13 lbs.
6812TDG	5/8"	2" x 2" x 1/8"	11/16"	0.12 lbs.
6813TDG	5/8"	2 1/4" x 2 1/4" x 3/16"	11/16"	0.24 lbs.
6814TDG	3/4"	2 1/4" x 2 1/4" x 3/16"	13/16"	0.23 lbs.
6818TDG	3/4"	4" x 4" x 3/16"	13/16"	0.87 lbs.





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