# Hot-Dip Galvanized Pipe



## ●What is Hot-Dip Galvanized Pipe

### ●Hot-Dip Galvanized Pipe

Hot-dip galvanizing is the process of coating steel pipe with a layer of zinc. The pipe is first cleaned and then heated to a temperature that is above the melting point of zinc. The steel is then dipped into a vat of molten zinc, where it is held for a period of time. During this process, the zinc reacts with the steel to form a thin layer of silver-colored zinc alloy. This layer helps to protect the steel from corrosion and rust. HDG pipe is often used in construction and other applications where steel is exposed to the elements.

## ●Dimensions and Size of Hot-Dip Galvanized Pipe

| DN | O.D. | | W.T. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inch | mm | SCH5S | SCH10S | SCH10 | SCH20 | SCH30 | SCH40 | SCH60 | SCH80 |
| 50 | 2″ | 60.3 | 1.65 | 2.77 | – | – | – | 3.91 | – | 5.54 |
| 65 | 2 1/2″ | 73 | 2.11 | 3.05 | – | – | – | 5.16 | – | 7.01 |
| 80 | 3″ | 88.9 | 2.11 | 3.05 | – | – | – | 5.49 | – | 7.62 |
| 90 | 3 1/2″ | 101.6 | 2.11 | 3.05 | – | – | – | 5.74 | – | 8.08 |
| 100 | 4″ | 114.3 | 2.11 | 3.05 | – | – | – | 6.02 | – | 8.58 |

| 125 | 5″ | 141.3 | 2.77 | 3.4 | – | – | – | 6.55 | – | 9.53 |
|---|---|---|---|---|---|---|---|---|---|---|
| 150 | 6″ | 168.3 | 2.77 | 3.4 | – | – | – | 7.11 | – | 10.97 |
| 200 | 8″ | 219.1 | 2.77 | 3.76 | – | 6.35 | 7.04 | 8.18 | 10.31 | 12.7 |
| 250 | 10″ | 273.1 | 3.4 | 4.19 | – | 6.35 | 7.8 | 9.27 | 12.7 | 15.09 |
| 300 | 12″ | 323.9 | 3.96 | 4.57 | – | 6.35 | 8.38 | 10.31 | 14.27 | 17.48 |
| 350 | 14″ | 355.5 | 3.96 | 4.78 | 6.35 | 7.92 | 9.53 | 11.13 | 15.09 | 19.05 |
| 400 | 16″ | 406.4 | 4.19 | 4.78 | 6.35 | 7.92 | 9.53 | 12.7 | 16.66 | 21.44 |
| 450 | 18″ | 457.2 | 4.19 | 4.78 | 6.35 | 7.92 | 11.13 | 14.27 | 19.05 | 23.83 |
| 500 | 20″ | 508 | 4.78 | 5.54 | 6.35 | 9.53 | 12.7 | 15.09 | 20.62 | 26.19 |
| 550 | 22″ | 558.8 | 4.78 | 5.54 | 6.35 | 9.53 | 12.7 | – | 22.23 | 28.58 |
| 600 | 24″ | 609.6 | 5.54 | 6.35 | 6.35 | 9.53 | 14.27 | 17.48 | 24.61 | 30.96 |

| DN | Inch | mm | SCH100 | SCH120 | SCH121 | SCH160 | Sth | XS | XXS |
|---|---|---|---|---|---|---|---|---|---|
| 50 | 2″ | 60.3 | – | – | – | 8.74 | 3.91 | 5.54 | 11.07 |
| 65 | 2 1/2″ | 73 | – | – | – | 9.53 | 5.16 | 7.01 | 14.02 |
| 80 | 3″ | 88.9 | – | – | – | 11.13 | 5.49 | 7.52 | 15.24 |
| 90 | 3 1/2″ | 101.6 | – | – | – | – | 5.74 | 8.08 | – |
| 100 | 4″ | 114.3 | – | 11.13 | 12.13 | 13.49 | 6.02 | 8.56 | 17.12 |
| 125 | 5″ | 141.3 | – | 12.7 | 13.7 | 15.88 | 6.55 | 9.53 | 18.05 |
| 150 | 6″ | 168.3 | – | 14.27 | 15.27 | 18.26 | 7.11 | 10.97 | 21.95 |
| 200 | 8″ | 219.1 | 15.09 | 18.26 | 19.26 | 23.01 | 8.18 | 12.7 | 22.23 |
| 250 | 10″ | 273.1 | 18.26 | 21.44 | 22.44 | 28.58 | 9.27 | 12.7 | 25.4 |
| 300 | 12″ | 323.9 | 21.44 | 25.4 | 26.4 | 33.32 | 9.53 | 12.7 | 25.4 |
| 350 | 14″ | 355.5 | 23.83 | 27.79 | 28.79 | 35.71 | 9.53 | 12.7 | – |
| 400 | 16″ | 406.4 | 26.19 | 30.96 | 31.96 | 40.49 | 9.53 | 12.7 | – |
| 450 | 18″ | 457.2 | 39.36 | 34.93 | 35.93 | 45.24 | – | – | – |
| 500 | 20″ | 508 | 32.54 | 38.1 | 39.1 | 50.01 | – | – | – |
| 550 | 22″ | 558.8 | 34.93 | 41.28 | 42.28 | 53.98 | – | – | – |
| 600 | 24″ | 609.6 | 38.89 | 46.02 | 47.02 | 59.54 | – | – | – |

## •Difference Between Hot-Dip Galvanizing and Pre-Galvanizing

| Feature | Hot Dip Galvanization | Pre-Galvanizing |
|---|---|---|
| Coating Thickness | Thick coating with minimum average requirements of 45-85μm within BS EN ISO 1461 | The coating thickness may vary, but it is typically circa 20 渭 m for sheets and 20-30μm for tubes |
| Coating Continually | Continuous coating over the whole object | The uncoated area at cut edges |
| Coating Bond | Strong metallurgical bond with the base steel | Strong metallurgical bond with the base steel |
| Coating Formability | Forming after hot dipped galvanizing is not advised as it may damage the coating | A thin coating may be normally formed without any damage |
| Coating Appearance | Normally bright, but can be variable | Normally bright |
| Abrasion Resistance | A thicker layer of hard zinc-iron alloy gives a high resistance to abrasion | Thin alloy layer with reduced resistance to abrasion |
| Sacrificial Protection | Offer the highest level of sacrificial protection | Reduced sacrificial protection due to thin layer coating and at some uncoated areas (cut edges) |