



## **Steel Protection by Hot Dip Galvanising & Duplex Systems**

Information courtesy of: HOT DIP GALVANIZERS ASSOCIATION SOUTHERN AFRICA

### **Specifying Hot Dip Galvanizing**

The galvanizer acts as a sub-contractor to a steel fabricator and as such, his contractual relationship is normally with the fabricator, not with the ultimate user or specifier. It is important, therefore, that the users or specifiers' requirements for hot dip galvanizing are made clear to the fabricator and that all instructions are channeled via the fabricator to the galvanizer.

Due to frequent misrepresentation and incorrect specifying of other coatings such as "cold galv." and "electrogalv." which no doubt fulfill a requirement in the market, the specifier, who requires hot dip galvanizing for corrosion protection reasons, should specify that all components be hot dip galvanized to ISO 1461 or EN 10240 as applicable.

To ensure the best quality and technical support, a galvanizer who is a member of The Hot Dip Galvanizers Association Southern Africa should be preferred.

When hot dip galvanizing is specified, the surface of the base steel is completely covered with a relatively uniform coating of zinc and the minimum thickness specified is related to the thickness of the steel being hot dip galvanized, as shown in table 19.

In South Africa, the South African Bureau of Standards (SABS) has adapted **ISO 1461:1999**, **EN 10240:1999** and **ISO 14713**. The specifications are therefore published by the SABS as **SABS ISO 1461:1999**, **SABS EN 10240:1999** and **SABS ISO 14713:1999**.

### **10.2 LEAD TIMES**

As a general guide, most articles can be hot dip galvanized and returned to the fabricator within 7 days after receipt.

In the case of large contracts, the galvanizer should be involved at the programming stage with the fabricator and the end user. Hot dip galvanizing is normally the final process after fabrication and prior to delivery and erection. If sufficient time for galvanizing and inspection is not provided in the overall programme, costly delays may occur at the erection stage.

## MINIMUM COATING THICKNESS ON ARTICLES THAT ARE NOT CENTRIFUGED

SANS 121/ ISO 1461:1999		SANS 121/ISO 1461:2009		
Category and thickness (t) mm		Category and thickness (t) mm	Local coating thickness (minimum) $\mu\text{m}^*$	Mean coating thickness (minimum) $\mu\text{m}^*$
<b>PROFILES</b>	$t \geq 6$	$t > 6$	70	85
	$t \geq 3$ to $< 6$	$t > 3$ to $\leq 6$	55	70
	$t \geq 1.5$ to $< 3$	$t \geq 1.5$ to $\leq 3$	45	55
	$t < 1.5$	$t < 1.5$	35	45
<b>CASTINGS</b>	$t \geq 6$		70	80
	$t < 6$		60	70

■ Thickness legend -  $3\text{mm} > t \leq 6\text{mm}$  - thickness greater than 3mm but equal to and less than 6mm.