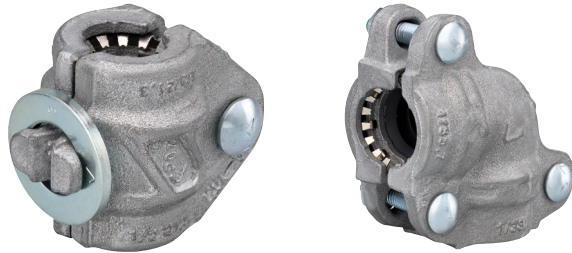


## Victaulic™ Coating Data Sheet



### Thermally Diffused Zinc Coating

Thermally diffused zinc (TDZ) is a multi-layer, zinc alloy-based coating, specified for use in applications where hot dipped galvanizing (HDG) is being considered. TDZ is a direct replacement for HDG, with equal or better performance as determined by several standard industry tests.

### Performance & Corrosion Resistance

TDZ provides improved corrosion resistance compared to traditional HDG as determined by the ASTM B117 salt spray test. Unlike other topical coatings, TDZ is applied through a thermal diffusion process where the zinc is directly diffused into the base material, resulting in a hard, wear-resistant coating that can withstand abrasion and other mechanical damage. TDZ creates a metallurgical phase with the substrate which eliminates flaking and dripping issues.

### Application and Coverage

TDZ is an engineered coating in which up to 30% of the zinc alloy layer penetrates the steel or ductile iron substrate. The thermal diffusion process allows for uniform coverage and thickness even with complex cavities and geometries. TDZ is applied in accordance with ASTM A1059/A1059M.

### Topcoat

Victaulic's TDZ-coated products are supplied with a pre-applied topcoat which provides additional protection from surface staining.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

## Coating Comparison Results

The information in this table compares the thermally diffused zinc coating to traditional hot dip galvanizing.

Coating Comparison	TDZ as per ASTM A1059	HDG as per ASTM A123
Environmentally Friendly <i>(RoHS &amp; EU ELV Directive (2000/53/EC))</i>	Yes	No
Application Method	Thermal Diffusion	Dip
Uniform Thickness	Yes	No
Risk of Hydrogen Embrittlement <i>(ASTM F519)</i>	No	Yes
Anti-Galling Properties	Yes	No
Can Be Coated or Painted	Yes	No
Corrosion Resistance <i>(ASTM B117)</i>	500 Hours No Red Rust	20 Hours White Rust 300 Hours Red Rust
Hardness <i>(ASTM E384/D2240)</i>	37 – 42 HRC	23 HRC
Substrate Penetration/Interface	10 microns	5 microns
Impact Resistant	Yes	No
Flaking / Chipping Resistant	Yes	No

### NOTICE

**Coating selection is the responsibility of the specifying engineer based on as installed conditions. The durability/longevity of any coating in a particular application is based on multiple factors and selection of the coating should be determined by an individual familiar with the application and the environmental factors.**

**Final determination of the coating rests with the engineer of record, property owner or facility manager.**

#### User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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#### Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

#### Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

#### Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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