



# Tank Base Protection System - Viscotaq™ System Specification Guide

## 1.0 Scope

- 1.1 This specification may be used for protecting tank bases and chimes with Denso Viscotaq products.
- 1.2 The Engineer shall select appropriate sections of the specification to ensure that the specification is comprehensive for specified work.

## 2.0 General Requirements

- 2.1 Contractor shall comply with all written recommendations of the manufacturer regarding applications of the specified system.
- 2.2 To obtain the specified materials, contact Denso, Inc., 9710 Telge Road, Houston, TX 77095, (Tel) 281-821-3355 (Fax) 281-821-0304 or 90 Ironside Crescent Unit 12, Toronto, Ontario, Canada M1X1M3, (Tel) 416-291-3435 (Fax) 416-291-0898. E-mail: info@densona.com.

## 3.0 Materials

### 3.1 Viscotaq ViscoMastic or Viscotaq ViscoMastic XHT

- 3.1.1 Viscotaq ViscoMastic and Viscotaq ViscoMastic XHT shall be comprised of an amorphous, apolar, visco-elastic, semi-solid and polyolefin mastic. The ViscoMastic XHT has been formulated for high temperatures up to 257°F (125°C).

- 3.1.2 The physical specification values shall meet the values given on the data sheet.

### 3.2 Viscotaq Adhesion Promoter

- 3.2.1 Viscotaq Adhesion Promoter shall be comprised of a quick drying, solvent-based, high tack adhesion promoter based upon the unique amorphous and semi-solid Viscotaq polymer technology.

- 3.2.2 The physical specification values shall meet the values given on the data sheet.

### 3.3 Viscotaq EZ Wrap

- 3.3.1 Viscotaq EZ Wrap Tape shall be comprised of an amorphous, apolar, visco-elastic, semi-solid, polyolefin with a paintable fabric backing.

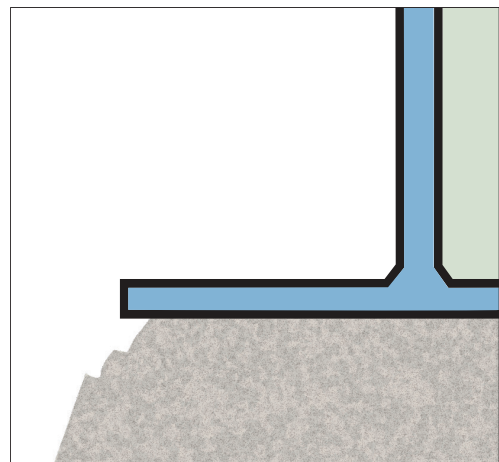
- 3.3.2 The physical specification values shall meet the values given on the data sheet.

### 3.4 Archco 15 or Archco 65 Top Coat

- 3.4.1 Archco 15 shall be a high build flexible acrylic topcoat. It is a high impact topcoat that provides excellent UV & abrasion resistance and flexibility when applied over Viscotaq EZ Wrap. It can be used on tank base applications up to 150°F (65°C).
- 3.4.2 Archco 65 shall be a high solids, two-part aliphatic polyurethane topcoat. It is a topcoat that provides long-term protection and aesthetic enhancement of structures when applied over Viscotaq EZ Wrap. It is primarily used for higher temperatures on tank base applications up to 200°F (93°C).
- 3.4.3 The physical specification values shall meet the values given on the data sheet.

## 4.0 General Surface Preparation Requirements

- 4.1 The surface area to be coated should be inspected prior to coating; known defects must be documented and photographed prior to application.
- 4.2 Any existing damaged coating shall be removed before or as part of the surface preparation process.



- 4.3 The surface of the tank where the Viscotaq is to be applied shall be cleaned to a minimum of St 2/SSPC-SP2 (Hand Tool Cleaned); however, where possible to St 3/SSPC-SP3 (Power Tool Cleaned).
- 4.4 Power wash the application area to remove any loose particles.
- 4.5 Clean all surfaces to be coated to Solvent Clean SSPC-SP1, using an oil-free solvent (Acetone, Denatured Alcohol, and Isopropyl alcohol) to remove all mud, mill lacquer, wax, tar, oil, grease, or other foreign particles.

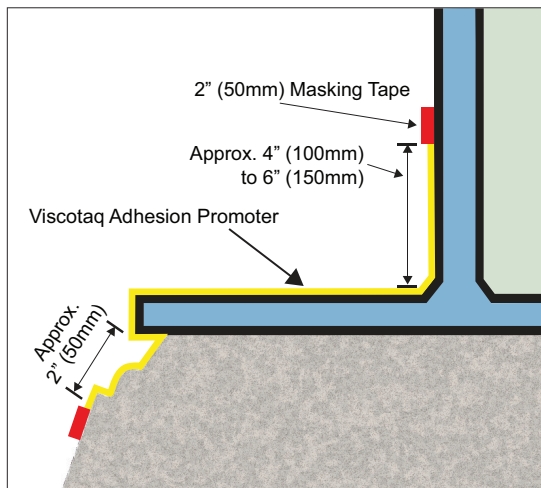
NOTE: Industrial-grade citrus-based (d-Limonene) products are not approved for use as an oil-free solvent.

- 4.6 Dry thoroughly the area where Viscotaq is to be applied.
- 4.7 Cleaned areas shall have a protective coating applied before the end of the shift. If a cleaned surface does not get coated, it shall be re-cleaned on the next shift.

## 5.0 Application of Denso Viscotaq System for Tank Chime Sealing

### 5.1 Viscotaq Adhesion Promoter

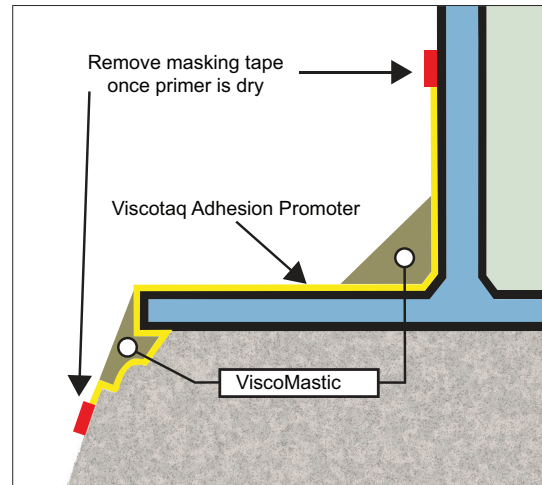
- 5.1.1 Measure and mask top and bottom with 2" (50 mm) masking tape to mark areas where the Viscotaq Adhesion Promoter will be applied. The bottom masking strip shall start at approximately 2" (50 mm) below the base floor plate just below the chime and concrete base. The top strip of masking tape shall be applied approximately 4" (100 mm) to 6" (150 mm) up the tank wall.
- 5.1.2 Apply a thin uniform coat of Viscotaq Adhesion Promoter to all surfaces within the masked area and allow it to tack dry. Care must be taken not to contaminate the substrate outside of the measured masking tape areas. The Adhesion Promoter should be applied prior to all other Viscotaq products. Once the Adhesion Promoter is dry to touch, remove the top and bottom strips of masking tape.



### 5.2 Viscotaq ViscoMastic, or Viscotaq ViscoMastic XHT

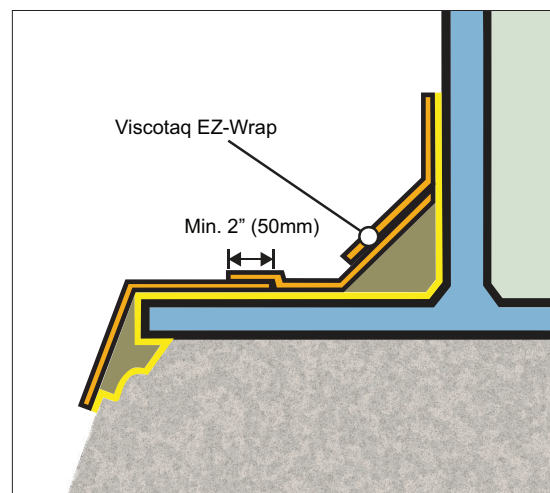
- 5.2.1 The ViscoMastic shall be used to seal all gaps/cracks. The appropriate amount of ViscoMastic shall be applied by hand at approximately 1" (2.5 cm) deep into the gap between the base of the tank and the ring wall.

- 5.2.2 Fill all small voids, cracks and profile the 90° tank base angle by molding the ViscoMastic to create a 45° angle toward the concrete base. Should the base feature a stepped profile, apply ViscoMastic at a 45° angle toward the ground in order to create a smooth profile for wrapping with the EZ-Wrap.



### 5.3 Viscotaq EZ Wrap

- 5.3.1 Viscotaq EZ Wrap is applied by removing the release liner and placing the adhesive side onto the surface to be protected.
- 5.3.2 The first strip of Viscotaq EZ Wrap should start from the bottom of the concrete base, carefully aligning the EZ Wrap with the outer edge of the Adhesion Promoter. Thus, starting from the bottom up providing a weatherboard effect.
- 5.3.3 Subsequent strips of EZ Wrap shall be overlapped by a minimum of 2" (50 mm) and extend over the mastic onto the ring wall and going up approximately 4" (100 mm) to 6" (150 mm) up the tank wall to carefully align with the Adhesion Promoter.
- 5.3.4 When connecting rolls the EZ-Wrap should be overlapped a minimum 1" (2.5 cm).

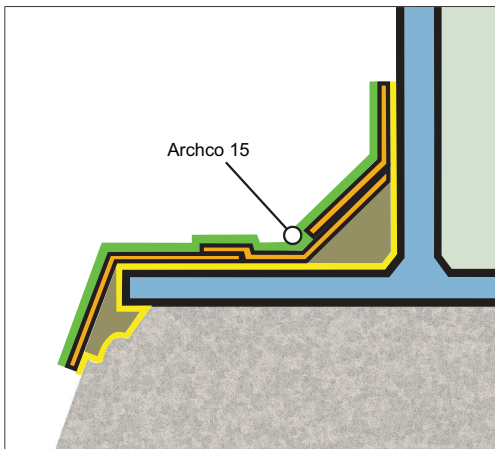


5.3.5 The Viscotaq EZ Wrap shall be gently smoothed by hand and steel roller to ensure there are no wrinkles, folds, or entrapped air. If required you may use a heat gun and pressure to make sure the sealing compound is fully impregnated in the polyester backing of the Viscotaq EZ Wrap.

**5.4 Archco 15 or Archco 65 Top Coat**

5.4.1 Prior to applying Archco 15 we recommend applying masking tape approximately ½” (13 mm) above the top and bottom edges of the EZ-Wrap. Brush apply the Archco 15 in two coats consisting of approximately 10 to 12 mils (254 - 305 microns) wet-film thickness per coat. Recoat time of Archco 15 is approximately 1 to 2 hours at 77°F (25°C). All EZ-Wrap should be top coated including all edges. Once Archco 15 is dry, remove masking tape. Archco 15 shall only be used on tank bases at regular temperatures up 150°F (65°C).

5.4.2 For tank bases that require higher temperature the Archco 65 shall be used. Prior to applying Archco 65 we recommend applying masking tape approximately ½” (13 mm) above the top and bottom edges of the EZ-Wrap. Brush apply Archco 65 in two coats consisting of approximately 5 to 8 mils (125 - 203 microns) wet-film thickness per coat. Recoat time of Archco 65 is approximately 6 to 8 hours at 77°F (25°C). All EZ-Wrap should be top coated including all edges. Once Archco 65 is dry, remove masking tape. Archco 65 shall only be used on tank bases at high temperatures up 200°F (93°C).



**5.5 Inspection**

5.5.1 Ensure that the entire surface to be protected is covered with no gaps or air pockets. Ensure that the correct overlap is achieved.

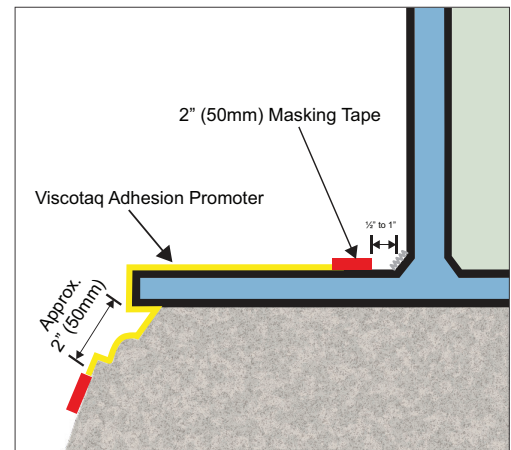
**6.0 Application of Denso Viscotaq System for Tank Chime Sealing for API-653 Standard**

**6.1 Viscotaq Adhesion Promoter**

6.1.1 Measure and mask top and bottom with 2” (50 mm) masking tape to mark areas where the Viscotaq Adhesion Promoter will be applied. The bottom masking strip shall start at approximately 2” (50 mm) below the tank base floor plate just below the chime and concrete base.

The top strip of masking tape shall be applied min. 2” before the weld joint at the base plate and tank wall, leaving the flat area of the base plate exposed so that it can be coated with Adhesion Promoter. The weld joint shall not be coated with the Adhesion Promoter. The weld joint shall remain visible once all products are applied so that future weld inspections may be completed.

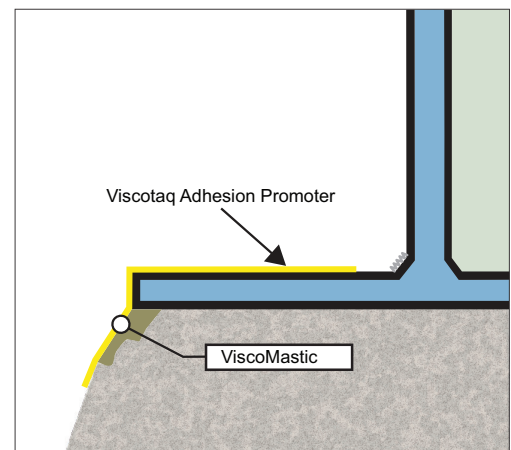
6.1.2 Apply a thin uniform coat of Viscotaq Adhesion Promoter to all surfaces within the masked area and allow it to tack dry. Care must be taken not to contaminate the substrate outside of the measured masking tape areas. The Adhesion Promoter should be applied prior to all other Viscotaq products. Once the Adhesion Promoter is dry to touch, remove the top and bottom strips of masking tape.



**6.2 Viscotaq ViscoMastic, or Viscotaq ViscoMastic XHT**

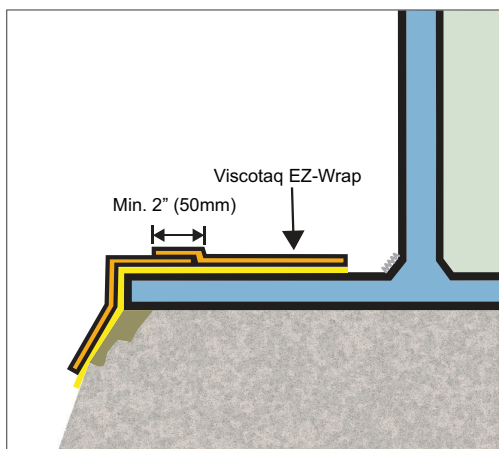
6.2.1 The ViscoMastic shall be used to seal all gaps/cracks. The appropriate amount of mastic shall be applied by hand at approximately 1” (2.5 cm) deep into the gap between the base of the tank and the ring wall.

6.2.2 Fill all small voids, cracks. Should the tank base feature a stepped profile, apply ViscoMastic at a 45° angle toward the ground in order to create a smooth profile for wrapping with the EZ-Wrap.



### 6.3 Viscotaq EZ Wrap

- 6.3.1 Viscotaq EZ Wrap is applied by removing the release liner and placing the adhesive side onto the surface to be protected.
- 6.3.2 The first strip of Viscotaq EZ Wrap should start from the bottom of the concrete base, carefully aligning the EZ Wrap with the outer edge of the Adhesion Promoter. Thus, starting from the bottom up providing a weatherboard effect.
- 6.3.3 Subsequent strips of EZ Wrap shall be overlapped by a minimum of 2" (50 mm) and extend over the mastic onto the tank base plate and terminate before the weld joint of the base plate and tank wall carefully aligning the EZ Wrap with the edge of the Adhesion Promoter.
- 6.3.4 When connecting rolls the EZ-Wrap should be overlapped a minimum 1" (2.5 cm).
- 6.3.5 The Viscotaq EZ Wrap shall be gently smoothed by hand and steel roller to ensure there are no wrinkles, folds, or entrapped air. If required you may use a heat gun and pressure to make sure the sealing compound is fully impregnated in the polyester backing of the Viscotaq EZ Wrap.

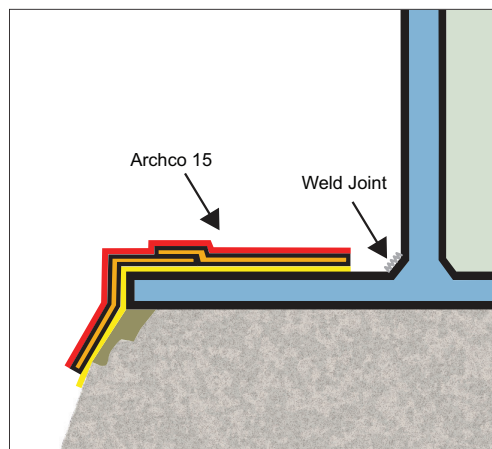


### 6.4 Archco 15 or Archco 65 Top Coat

- 6.4.1 Prior to applying Archco 15 we recommend applying masking tape approximately 1/2" (13 mm) above the top and bottom edges of the EZ-Wrap. Brush apply the Archco 15 in two coats consisting of approximately 10 to 12 mils (254 - 305 microns) wet-film thickness per coat. Recoat time of Archco 15 is approximately 1 to 2 hours at 77°F (25°C). All EZ-Wrap should be top coated including all edges. Once Archco 15 is dry, remove masking tape.

Archco 15 shall only be used on tank bases at regular temperatures up 150°F (65°C).

- 6.4.1 For tank bases that require higher temperature the Archco 65 shall be used. Prior to applying Archco 65 we recommend applying masking tape approximately 1/2" (13 mm) above the top and bottom edges of the EZ-Wrap. Brush apply Archco 65 in two coats consisting of approximately 5 to 8 mils (125 - 203 microns) wet-film thickness per coat. Recoat time of Archco 65 is approximately 6 to 8 hours at 77°F (25°C). All EZ-Wrap should be top coated including all edges. Once Archco 65 is dry, remove masking tape. Archco 65 shall only be used on tank bases at high temperatures up 200°F (93°C).



### 6.5 Inspection

- 6.5.1 Ensure that the entire surface to be protected is covered with no gaps or air pockets. Ensure that the correct overlap is achieved and that the weld joint at the base plate and tank wall has not been covered.



**DENSO, INC.**

**HOUSTON:**  
9710 Telge Road,  
Houston, Texas,  
U.S.A. 77095  
Tel: 281-821-3355  
Fax: 281-821-0304

**TORONTO:**  
90 Ironside Crescent,  
Unit 12, Toronto,  
Ontario, Canada M1X1M3  
Tel: 416-291-3435  
Fax: 416-291-0898

[www.densona.com](http://www.densona.com)

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