

TEROSON® VR 4610

Known as Zinc Spray
November 2023

PRODUCT DESCRIPTION

TEROSON® VR 4610 provides the following product characteristics:

Technology	Zinc corrosion protection primer
Chemical type	Zinc with epoxy agent
Appearance	Grey
Cure	Room temperature
Application	Corrosion protection
Application temperature	10 to 25°C (50 to 77°F)
In service temperature	-50 to 130°C (-58 to 266°F)

TEROSON® VR 4610 is a sprayable, fast curing zinc dust corrosion protection primer in an aerosol based on zinc, with an epoxy bonding agent. The material provides optimal protection against corrosion for iron and steel as a result of its electro-chemical interaction. The dry film bonds well to cleaned metal. As a result of its self-healing properties TEROSON® VR 4610 is able to close small lesions and hence offer lasting protection for the steel surfaces. Typical applications include touching up ferrous metal parts after welding and to provide long-term protection of metal assemblies.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific gravity @ 23°C 1.03

TYPICAL CURING PERFORMANCE

Drying time, minutes 30

TYPICAL PERFORMANCE OF CURED MATERIAL

Corrosion resistance No corrosion
salt primer test DIN 50021
(35°C, salt solution 5%,1000h)

Dry-film thickness, µm 50

Adhesion acc. to DIN 53151 Cross cut
characteristic
value GT 0-1

General information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet.

Use only in a well-ventilated area.

Directions for use

Pretreatment

1. Surfaces to be treated with TEROSON® VR 4610 have to be cleaned well and rust must be removed.
2. Any old coats of paint or rust converters etc. should not be overspread but should be removed prior to spraying.
3. The areas must be dry and grease, dirt and dust free.
4. Where possible the surfaces should be sanded; steel surfaces are prepared by sand blasting to SA 2.5 according to DIN 55928.

Application

1. TEROSON® VR 4610 should not be applied below 10°C (50°F) and above 25°C (77°F) . The temperature of metal surfaces must not exceed 30°C (86°F), however, metal temperature should at least be 3°C above dew point.
2. The material should be at room temperature at time of application.
3. Shake can vigorously, when the steel ball inside the can rattles, continue to shake for approx. 1 minute.
4. Hold can vertically while spraying and apply in two to three crossing patterns at a distance of about 20 to 30 cm (8 to 12 inches).
5. After use the can should be inverted, and the valve activated until the jet is cleared and only propellant is emitted.

Drying

1. Both air-drying and oven drying are possible.
2. In the case of air drying, the ambient and object temperature as well as the relative humidity can influence the drying times.

Cleaning

1. Remove excess spray immediately with TEROSON® VR 10.
2. Solvents may remove paints.

Painting

1. TEROSON® VR 4610 is overpaintable.
2. 40 µm layer is over paintable after 6 hours and before 24 hours at minimum.
3. In instances where painting is required, a trial coat should be applied and observed with TEROSON® VR 4610.

Handling precautions

Product must be handled in a manner applicable to highly flammable materials and in compliance with relevant local regulations. Special care must be taken to avoid contact of the product or its vapour with naked flame or any electrical equipment that is not flame proofed.

It is recommended to check all surfaces for compatibility before use.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 5°C to 25°C. Protect from temperatures over 50°C.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

Product Specification

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate

Please contact Henkel representative for related approval or certificate of this product.

Data Ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions

(°C x 1.8) + 32 = °F

kV/mm x 25.4 = V/mil

mm / 25.4 = inches

µm / 25.4 = mil

N x 0.225 = lb

N/mm x 5.71 = lb/in

N/mm² x 145 = psi

MPa x 145 = psi

N·m x 8.851 = lb·in

N·m x 0.738 = lb·ft

N·mm x 0.142 = oz·in

mPa·s = cP

Disclaimer

The information provided in this Technical data sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical data sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office."

Reference 1