RUST-X®

REST WITHOUT RUST

ZHONGZHEN DEXING (BEIJING) PRESERVATION MATERIALS CO.,LTD.

EXCLUSIVE DISTRIBUTOR IN CHINA AUTHORIZED BY RUST-X USA

VCI SMP TECHNOLOGY

COMMITTED TO VCI VAPOR PHASE RUST PREVENTION

TO PROVIDE CUSTOMERS WITH INTEGRATED CORROSION PREVENTION SOLUTIONS

RUST-X®

COMPANY PROFILE

Zhongzhen Dexing (Beijing) Preservation Materials Co., Ltd. focuses on VCI preservation, is committed to providing rust prevention and corrosion control solutions in industries. Our company was authorized to be Chinese exclusive distributor of RUST-X USA on October 25, 2017. Currently, we have set numerous provincial-level distributors, secondary distributors and project distributors in Shanghai, Jiangsu, Tianjin, Hebei, Guangdong, Fujian, Liaoning and other regions, for providing customers with localized, professional, pre-sales, sales and after-sales services speedily. We promise that our engineers will be on site in 24 hours within 48 hours if any rust or corrosion control required by customers. Zhongzhen RUST-X escorts the pillars for customers with preservation in process, storage, ocean delivery and equipment operation!

RUST-X researches and develops VCI products including VCI oils, water-based liquids, coatings, additives, wax coatings, rust remover, VCI packages(masking stickers, shrink films, films, papers, foams), emitters, desiccants and so on by adopting VCI technology independently. The main features of VCI products are: dual protective barriers of contact phase and vapor phase rust prevention. Non-toxic, environmentally friendly and biodegradable.

RUST-X USA is specialized for providing high-quality rust preventive products and services in various industries. Its headquarter is in California USA, with production bases are mainly distributed in the United States, India, Singapore, Indonesia,Australia, Italy, Dubai and Mexico. It manufactures over 500 rust preventive products, providing customers with integrated corrosion control solutions in offshore & marine, nuclear power, wind power, automobiles, aerospace, rail transit, metal processing, mechanical equipment, electronic components and many other industries.

Our products have been approved by REACH, which are subject to ROHS (Restriction of Hazardous Substances Directive), and have ISO9001&ISO14001 certified. All VCI products contain SMP(speedy moisture passivation) technology, which can release effective chemicals quickly, deactivate of moisture and inhibit chemical corrosion. Our products can volatilize VCI molecules in short time, until reaching a balance; Moreover, the package system can achieve sustained preservation effect for long period in a relatively enclosed space.

Zhongzhen RUST-X owns advanced VCI technology, professional VCI preservation solutions, vibrant distributors and sales team, ZhongZhen team will strive for rust prevention and corrosion control in China!

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QUALIFICATIONS

Certificate of RUST-X USA Distributorship (Exclusive)

VCI Applicator Team
(Shrink film packaging service)

ISO14001: 2015

REACH

ISO9001: 2015

IDENTIFIER: B011925030000046

IDENTIFIER: B012325030000089

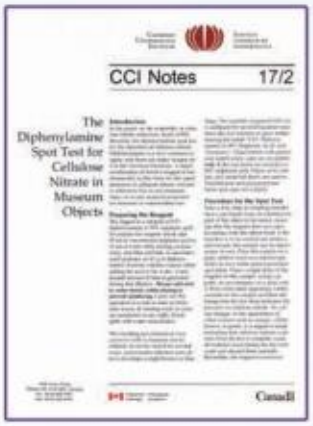
IDENTIFIER: B012325030000109

Qualification Certificates of Surface Treatment Engineers(RUST PREVENTION)

RUST-X®

Certificates

ISO 9001:2016



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IMPORTANT FIELDS OF CORROSION IN CHINA

1. Infrastructure: industries such as highways and bridges, ports and docks, and water conservancy engineering;
2. Transportation: industries such as aircrafts, ships, automobiles, and rail transit;
3. Energy: oil and gas storage and transportation, coal industry, power transmission and transformation, clean energy, water conservancy and power generation, thermal power and so on;
4. Water environment: urban water supply and drainage, offshore oil platforms, seawater desalination and so on;
5. Production responsibility and public utilities: industries such as chemical industry, cultural relics, papermaking, engineering machinery, medical materials, electronic appliances,
metallurgy and mining, agricultural machinery industry, food machinery, etc,.

CAUSES OF CORROSION

EXTERNAL CAUSES OF METAL CORROSION

1. Relative humidity

The higher the relative humidity in the air, the thicker the moisture film on the metal surface, and the oxygen in the air acts on the metal surface through the moisture film. When the relative humidity reaches a certain value, the corrosion rate increases obviously, which is called critical relative humidity. The critical relative humidity of steel is about 70%.

2. Temperature

Environmental temperature is related to relative humidity, and even in dry environments (deserts), metals are less likely to rust at high temperatures. When the relative humidity reaches the critical value, the influence of temperature intensifies clearly. For every 10 ° C increase in temperature, the corrosion rate doubles. Therefore, in humid tropics or rainy seasons, the higher the temperature, the more severe the corrosion.

3. Oxygen

The corrosion process is represented by the following reaction equations:

$Fe+H_20 \rightarrow Fe(OH)_2$

$Fe(OH)_2+H_20+0_2 \rightarrow Fe(OH)_3$

$Fe+H_20+0_2 \rightarrow Fe(OH)_3$

It can be summed up that without water and oxygen, metals will not get corrosion.

4. Others

When the atmosphere contains salt mist, sulfur dioxide, hydrogen sulfide and dust, it will accelerate corrosion. Therefore, the corrosion varies in different environments visibly: urban areas higher than rural areas; industrial areas higher than living areas; coastal areas higher than inland areas; high dust areas higher than low dust areas.

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CAUSES OF CORROSION IN MARINE TRANSPORT

1. CONTAINER RAIN

CHANGES IN TEMPERATURE DURING THE SAIL CAUSES SUDDEN EVAPORATION AND CONDENSATION CALLED AS CONTAINER RAIN RANGING UPTO HIGHER HUMIDITY INSIDE CONTAINER. ACIDIC SEA HUMIDITY CAUSES REACTION WITH METAL AT MUCH FASTER RATE THAN COMPONENTS LYING IN FACTORY FLOOR. CORROSION ENGINEERING MAKES IT POSSIBLE TO DECIDE, USE AND IMPLEMENT A COMPLETE SYSTEM TO COUNTERACT THE ADVERSE SEA CONDITIONS.

2. PLASTICS ARE H2O PERMEABLE

LDPE, HDPE ETC HAVE POROSITY OF WATER ALSO TERMED AS WATER VAPOUR TRANSMISSION RATE (WVTR) TO THE EXTENT OF4 GMS/SQM/24 HOURS.

TO MAKE THIS FULL PROOF CHEMICALS NEED TO BE PRESENT INSIDE THE PACKAGING TO CONTINUOUSLY REACT WITH MOISTURE AND NEUTRALIZE IT TO INHIBIT BREATHING OF PACKAGING.

3. HUMIDITY IN CORRUGATED BOXES

STARCH PRESENT IN CORRUGATED BOXES IS HYGROSCOPIC. IT ABSORBS MOISTURE PRESENT IN THE ATMOSPHERE TO A TUNE OF 15-60% OF THE WEIGHT OF CORRUGATION. UNDER AMBIENT CONDITIONS, THE MOISTURE LEVELS ABSORBED IN CORRUGATION ARE ALWAYS MORE THAN 15%。ONCE THE TEMPERATURE IN THE CONTAINER RISES, THE MOISTURE IS RELEASED TO SURROUNDING METAL (BEING COOLER).

4. TREATMENT FOR (EQUIPMENT) METAL SURFACE

FAILURE TO ADOPT REASONABLE RUST PREVENTION AND CONTROL MEASURES ON METAL SURFACE.

COST OF CORROSION IN CHINA

·Baorong, Hou
·Marine Corrosion and Protection Expert
·Academician of CAE Member
·Researcher, Institute of Oceanology , Chinese Academy of Sciences
·Doctoral supervisor
·Director of National Research Center for Marine Corrosion and Protection Engineering Technology

On Oct.19, 2017, the 9th National Corrosion Conference, hosted by Chinese Society of Corrosion and Protection, was held in Qingdao. Baorong Hou, a researcher of Institute of Oceanology,Chinese Academy of Sciences and an academician of CAE Member, made a special report, which briefly introduced the significance, implementation process and investigation results of the major consulting projects of Chinese Academy of Engineering "Research on Corrosion Status and Control Strategy in China", and released the monograph of general report of the investigation project "Cost of Corrosion in China".

Baorong Hou, who proposed the concepts of technological corrosion control, active corrosion control, green corrosion control, and long-term corrosion control. Corrosion is closely related to the national economy. Corrosion issues almost in various industries and departments in the country. Structural damage to facilities and equipment, service life shorten by corrosion, and sudden disaster accidents may also be resulted by severe corrosion.

On Oct.25, 2021, at International Congress of the marine corrosion protection industry, Academician Baorong Hou stated that: producing 1 ton of steel would produce 1.83 tons of CO2, while producing 1 ton of cement would produce 1 ton of CO2. Currently, 90% materials used in our country's bridges, docks and roads are made of steel and concrete. If we extend the service life of steel and cement, it will contribute to our country's carbon peak actually.

According to major consulting projects of Chinese Academy of Engineering, "Research on the Corrosion Status and Control Strategy in China" survey outcomes:

The total cost of corrosion in China in 2014: 2127.82 billion CNY (including losses caused by corrosion and corrosion control investment)

Accounting for 3.34% of the current year's GDP

Equivalent to corrosion cost per person: 1555 CNY/year

In 2020, the corrosion loss in our country reached 3 trillion CNY(more)

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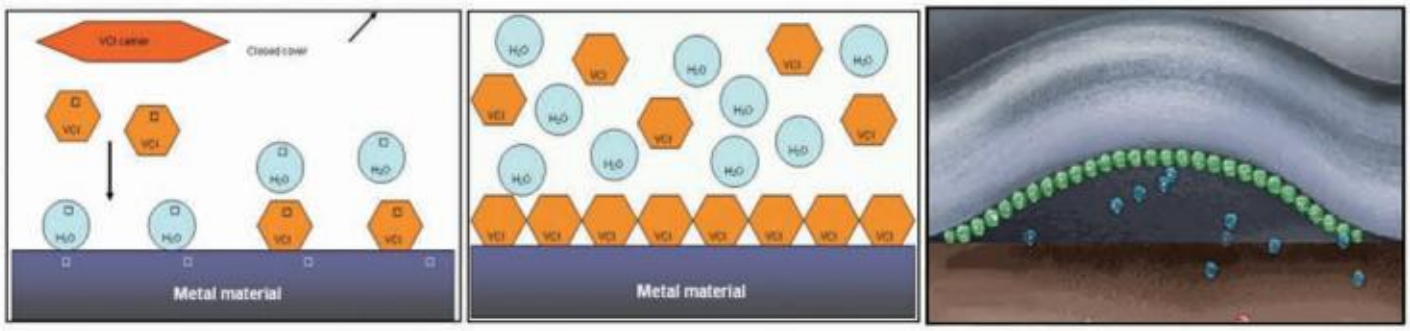
VOLATILE CORROSION INHIBITOR（VCI）



VCI technology, abbreviation of volatile corrosion inhibitor in English.
Principle: VCI with low saturated vapor pressure can volatilize VCI molecules continually and slowly at ambient temperature, and be adsorbed on the metal surface to form a stable protective film, which passivates the electron flow between the anode to the cathode, then inhibits the electron chemical reactions. Therefore, the formed protective film can block oxygen, humidity and other corrosion factors effectively from metal.

RUST-X® REST WITHOUT RUST · ZORB-IT · PARKER Automotive Lubricants · RUST-X COPPER SHIELD · AQUAFLUSH · TUFFPAULIN · I-MIX · NEUTRASAFE RUST REMOVER

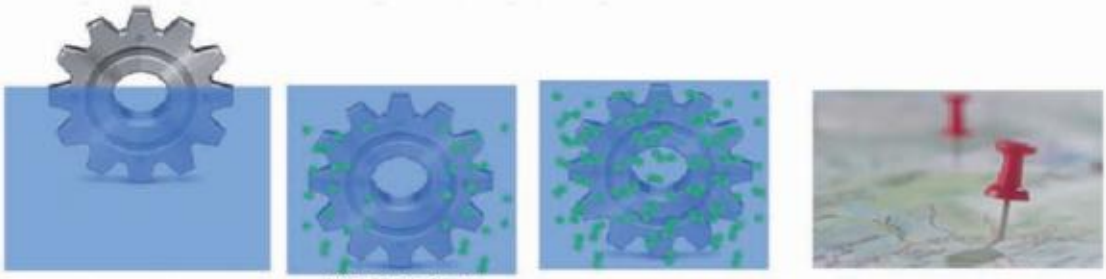
VCI technology features: preservation with contact phase as well as vapor phase.

Non-toxic, environmentally friendly and biodegradable!

VCI OIL
VCI MOLECULES CAN EVAPORATE TO SURFACE AT CAVITIES AND CREVICES IN ENCLOSED SPACE ACHIEVING CORROSION PREVENTION.

REGULAR RP OIL
CAVITIES AND CREVICES IN ENCLOSED SPACE GET CORROSION.EASILY

VCI SMP TECHNOLOGY
SPEEDY MOISTURE PASSIVATION



VCI Bag is opened

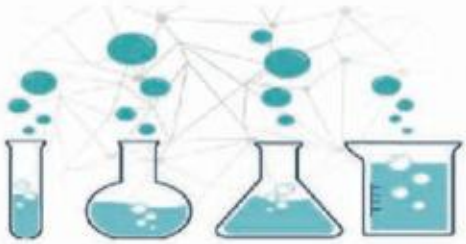
VCI Emissions Start in seconds

20% is evaporated in 6 hours and 80% over

Works upto a distance if 350 mm

Combination of 5 different chemicals

1. Speedy Chemical – Faster action
2. Longevity Chemical
3. Multimetal Chemical
4. Film forming Chemical
5. Sub Zero Action Chemical



RUST-X VCI packaging products is with SMP (Speedy Moisture passivation) volatile corrosion inhibitor technology, which can volatilize VCI molecules effectively, passivate metal quickly, reduce the moisture activity and inhibit rust or corroision surrounding the metal components.

20% VCI chemicals react within 6 hours;
80% VCI chemicals will keep balance in packaging system in 5 to 15 years.(Based on RP period and solutions)

TO PROVIDE CUSTOMERS WITH INTEGRATED CORROSION PREVENTION SOLUTIONS

RUST-X®

GLOBAL CUSTOMERS

CHINESE CUSTOMERS

NATIONAL DISTRIBUTORS DISTRIBUTION

National distributors: Beijing, Jiangsu, Shanghai, Anhui, Tianjin, Hebei, Zhejiang, Guangdong, Fujian, Jilin, Heilongjiang, Sichuan, Chongqing, Dalian, Shenyang, Urumqi, etc., also with secondary distributors and project distributors.

NATIONAL DISTRIBUTORS TRAINING MEETINGS

2018.3 Shen Yang

2018.7 Bei Jing

2019.12 Training for national distributors

2020.6 Tian Jin

2020.7 Fu Zhou

2021.5 Chong Qing

2021.4 Fu Jian

2022.6 Shan Dong

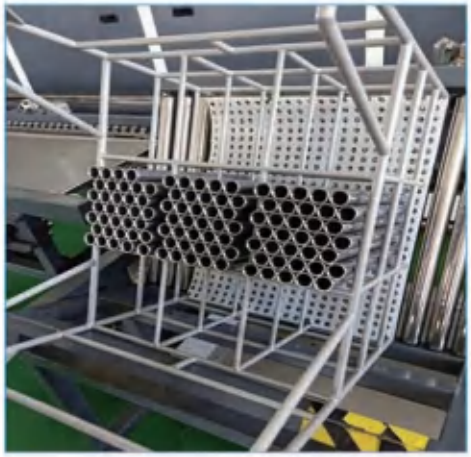
RUST-X®

APPLICATIONS

WATER-BASED CORROSION INHIBITOR

VCI Liquid VCI 1377

VCI1377 liquid is the latest generation of Rust Preventive water based solution, which is also eco-friendly. This is due a solvent free product, which upon evaporation does not harm the environment & does not release VOC's, CFC's, nitrites or gases that may harm the environment.
It can be applied by spray, dip or brush. It forms a corrosion preventive layer on the metal parts after it dries which is soft, easily washable in paint lines, not affect the adhesion of the glue,can be removed by generic washing agents. It can be diluted depending upon protection time required.It is a highly cost-effective water-based rust prevention product.
It can be diluted 1:3;1:5;1:7;1:10.



WATER-BASED RUST PREVENTIVE ADDITIVE

Water-based RPA 4800

RPA4800 Rust Preventive Additive is a water soluble rust preventive agent which can be added to water between 1%-5% concentration depending upon the usage for prevention of corrosion on metallic parts and period of life.
It can be used as a leak testing additive, can be added to re-circulate cooling water, boilers, heat exchangers, cutting oil tanks and any other water systems to avoid corrosion caused by water. This can also be added to pipelines during layup and makes the water work as a rust preventive.

Dilution rate: 1:50
Comparative test: 3months

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VCI OILS

EX SERIES RUST PREVENTIVE OILS

Exports of metallic components is a very critical task which requires specialized Rust Preventive Packaging schemes in synergism with highly effective rust preventive oils.
RUST-X EX Export Series RP oils have chemicals that give higher, faster and longer duration of protection to the metallic components from saline atmospheres during sea transportation as well as long term storage. RUST-X RP oils contain VCI chemicals, which work in contact phase as well as in the vapor phase and protect components by its dual action. Rust preventive oils are Barium & Heavy Metal Free.

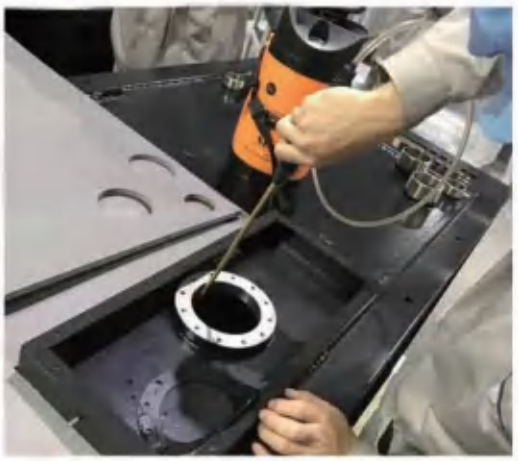
SN	IDENT	Type	Thickness	Application	Protect time	Apply method/Dry time
1	135Super Dry	Light Film RPO	0.25 μ	For small auto parts, easy to handle, and then packed in VCI film and paper. Applied for assembly line packaging, short-term storage and transportation.	Open: 1 month Packaging: 6 months VCI Packaging: 2 years	By dipping, dry after 5-10 minutes.
2	135Dry	Light Film RPO	0.5 μ	For in process, before and after welding, engine parts, aluminum parts, etc,.	Open: 2 months Packaging: 1 year VCI Packaging: 3 years	By dipping, dry after 5-10 minutes.
3	135A	Dewatering RPO Moisture displacing	1 μ	Suitable for in process, castings and machining parts, steel coils, pistons, cylinders of turbines, valves, automotive engine parts.	Open: 2-3 months Packaging: 2 years VCI Packaging: 5 years	By dipping, very light film
4	135C	Dewatering RPO Moisture displacing	3 μ	Form a slight lubricating film on the parts. More suitable for castings, forgings and parts with rough surfaces that can absorb oil than 135A.	Open: 2months Packaging: 2 years VCI Packaging: 5 years	By dipping or spray,slight film
5	135E	Dewatering RPO Moisture displacing	5 μ	Lubricating oil film for transmission devices, bearings,gears, shafts, bolts, etc,.	Open: 6months Packaging: 2 years VCI Packaging: 5 years	By dipping or spray or brush,slight film
6	145A	RPO(weldable)	10 μ	It does not need to be removed for welding after application. For welding groove processing surface, Without leaving welding slags, holes, does not affect the ignition.	Open: 6months Packaging: 2 years VCI Packaging: 5 years	By dipping or spray or brush,thick film
7	400A	RPO	15-20 μ	Cold rolled steel plates, engine parts and large equipment indoor open storage	Open: 6months Packaging: 2 years VCI Packaging: 5 years	By spray or brush,thick film
8	VCI Jelly	VCI Jelly	25-50 μ	Sticky gel, thick oil film,outdoor storage, mechanical equipment, Unsheltered pipes, valves, heat exchangers, etc,.	Open: 2 years Packaging: 5 years VCI Packaging: 10 years	Brush, very thick oil film, film can flow
9	VCI905	Fuel Additive	5-6 μ	Professional for gasoline, diesel, blending fuel,Provide corrosion protection for fuel lines, gasoline condensation pipelines or fuel tanks in use.	2 years	By dipping or spray or brush

WELDABLE RP OIL VCI 145A Ex

VCI 145A EX is a weldable rust preventive oil that does not need to be removed for welding after application. It can be used for welding groove processing surface, without generating welding slags, holes; and not affecting ignition. The fume during welding is harmless to the human body. This product has been certified by Caterpillar and listed in Caterpillar procurement system.

FUEL ADDITIVE VCI 905

VCI905 is professional rust prevention for fuel tank such as gasoline, diesel and gasohol mixtures. The coverage is 40 m² per liter by spray. For internal corrosion inhibiting in the fuel tanks , the partition boards/separators of fuel tanks are with through-holes/pores, inject VCI905 into the fuel tanks with air compressor or sprayer. Caterpillar, XCMG and Sinotruk Jinan Truck are our customers applying VCI905 to protect fuel tanks. It forms excellent corrosion inhibiting film on the metal surface at internal wall in fuel tanks. For the surface not reached, VCI905 vapors to the metal surface forming VCI film which insulates moisture and air. All oil-ways will be in protection after adding VCI905 to the fuel tanks, also with reducing carbon deposition.



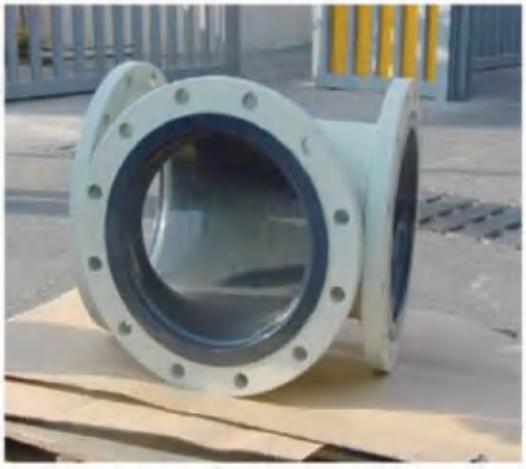
VCI SPRAY RUST-X 40

RUST-X 40 spray contains a thin film type rust preventive oil, which provides lubrication during use but dries to an invisible film after 5-10 minutes of application. This film is capable of providing short to long-term corrosion prevention depending upon the usage, packaging and the environment.
RUST-X 40 works well for steel, aluminum, iron, brass, copper, zinc, nickel, chromium and other multi-metal systems. This also reaches and lubricates crevices, voids and difficult to reach areas.

RUST-X®

VCI COATINGS

1. WATER BASED COATING VCI 657



VCI WRP 657 is an environmentally friendly water based coating to be applied on parts and equipment which require very high corrosion resistance in humid conditions,with low VOC.
It is a single pack polymer coating which is water based and solvent free, hence, an eco-friendly option for a clear coat. It is non-toxic, and forms a tack free transparent surface upon drying. The coating can be used on all kinds of metal surfaces, wood, brass as well as on coated surfaces such as phosphated, plated or surfaces with black oxide layer on them.
Drying time is 15-30 minutes at room temperature. The colour during application is white and upon drying forms a fully transparent coat.

2. VCI COATING VCI 509

VCI509 is a black permanent coating which resists corrosion after application and withstands aggressive environments. It can be applied with a brush, spray or dipping. After applying on it forms a shiny black protective layer on the parts.This protective layer is scratch resistant, with excellent adhesion, and provides superior protection in corrosive environments.It can be used to protect structures, chemical plants and equipment that are intended for outdoor storage or are located in open areas and need protection.
It can also be coated on automotive components, such as under bodies, gears,axles,transmissions etc. It can also be used to protect unpacked refinery equipment oil pipleline equipment and valves, off shore refinery parts which are not painted or coated and require protection or during the storage while commissioning, for lay-up during shut downs and also on heat exchangers, wind mills and automotives.

3. WAX COATING VCI 164

VCI-164 is wax-like coating that provides protection in harsh, outdoor applications . Provides multi-metal protection.
The features are:Flexible;Excellent salt spray protection; Excellent outdoor protection;For multimetal; Excellent UV resistance; Moisture displacing; heat resistance of cured film is up to 200°C;
For Pipe coating,Parts storage,Underbody coating,Wire rope,Steel plate,Machined parts;For carbon steel, stainless steel, copper, aluminum, cast iron.
By brushing or spraying. Film thickness 50-75microns is recommended for unsheltered outdoor storage.

VCI PACKAGINGS

VCI Lamina Shrink Film VCI 763

VCI763 lamina shrink film is manufactured using state of the art SMP Technology for speedy moisture passivation and provides long term corrosion protection to the packaged parts. When sealed isolates the packed machinery and equipment from influx of humidity and VCI pacifies the environment inside the packaging.

VCI763 is suitable for ferrous and non ferrous metals and inhibit the development of corrosion, tarnishing for upto 5 years in a complete system designed by RUST-X.VCI 763 is cross linked which increases the strength between the molecular chain,provides very high tear and tensile strength and dart impact.

VCI763 Lamina Shrink Film is a specially designed product for the packaging of heavy equipment, nuclear equipment, armament, automotive parts, engines, wind mills, power plant equipment, chemical plant equipment etc,. It is the preferred packaging solution for exporting large mechanical equipment by sea.

Film thickness:150μm;200μm;250μm; Dimension:6m×30.5m

RUST-X®

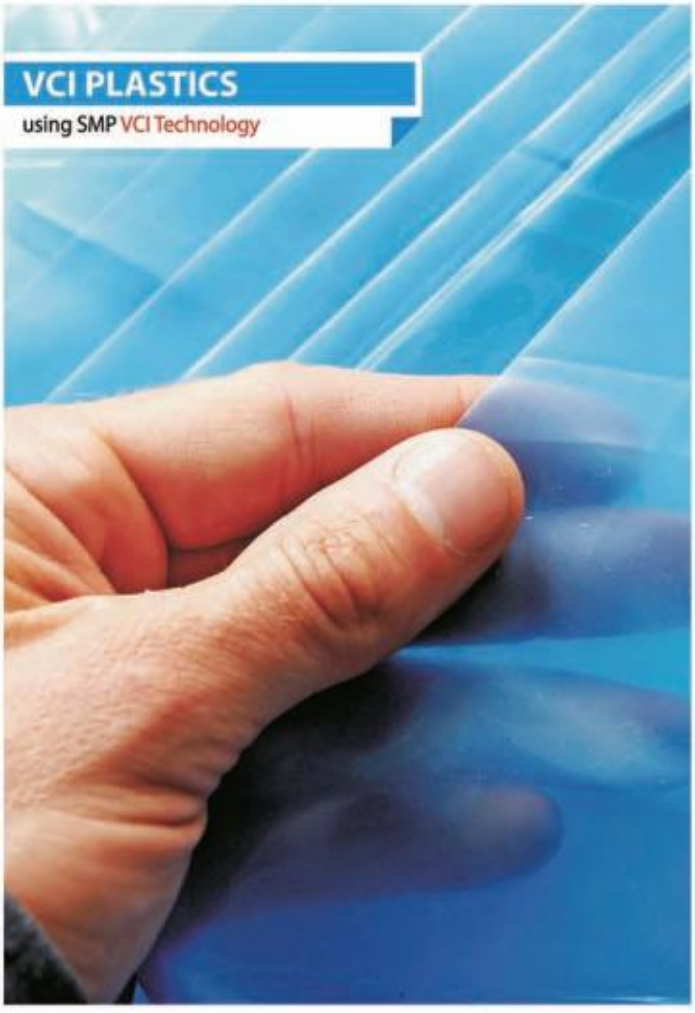
VCI FILM VCI 702

VCI702 Film is with SMP Technology, manufactured with speciality high strength polymers that have high transparency.It is produced on co extrusion lines with superior antioxidant and puncture resistance.

20% of VCI evaporates with 6 hours and remaining; 80% is exhausted over a long period.VCI technology of speedy moisture passivation has helped automotive, aerospace, engineering and heavy metals industry a great deal.Available in sheet, bags, 2D bags, 3D bags, can be customized.

Film thickness:75μm;150μm

Dimension:1.2m×150m



VCI PACKAGINGS

ZIP LOCK BAG VCI 707

VCI707 zip-lock bag is used for packing parts needed to be transported or stored. Several small parts can put in one VCI ziplock bag , and can be taken out according to your need. It can be reused. It can reduce wear among parts, it is transparent blue making it easy to identify.
Thickness: 100μm/150μm
Dimension: 30.5cmX45.7cm

VCI STRETCH FILM VCI 745

VCI745 stretch film is manufactured using proprietary Speedy Moisture Passivation (SMP) Technology and provides long term corrosion protection to the packaged parts. It is suitable for ferrous and non-ferrous metals.
It is multilayered and made from special proprietary additives that increase the strength between the molecular chain thereby providing a film with a very high tear strength, tensile strength and dart impact.
Dimension: 30.5cmX457.2mX30μ

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VCI MASKING STICKER VCI 965

VCI965 masking sticker is used to protect surfaces:flanges,machined surfaces, distribution boards, controllers, and sealing equipment surfaces. Paste it on clean surface with no air gaps. The adhensive is non-transferrable, simply remove by peeling off the sticker which results in clean, coating-free, adhesive-free surface.Excellent protection even outdoors.
Masking sticker is filled with VCI additive to ensure that it can be effective in entire service life.It has UV protection and will not easily crack during application.
Dimension: 1.2mx50m, can be die cut in required shapes.

VCI PACKAGINGS

VCI PAPER VCI 604/605

VCI paper is used to protect components that require high shelf life and protection against corrosion. It has a high VCI chemicals carrying capacity and is useful in protecting components for longer periods and also provides better abrasion resistance compared to thin film plastics. Goods wrapped in or protected by VCI paper are not affected by corrosion.

IDETI	VCI604	VCI605
Color	green	green
Type	non-laminated	laminated
Protect time	6-12months	2years

AL BAR FILM

VCI AL BAR film is manufactured using a developed process and structure. The film is manufactured on a 3 layer, multi-layer co-extrusion plant combined with laminated outer barrier layers comprising of Aluminum Foil and an over lamination with a Polyester Film. The combined multi-layered structure offers a very high oxygen and water vapor barrier combined with VCI properties.This is ideally used for packaging of metallic products or from equipment packaging for long term storage and transportation.These bags can be heat sealed using ordinary heat sealing machine or can also be provided with a self sealable adhesive tape which can be removed to form a sealed packaging system.

Dimension: 2mx50m

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TUFFPAULIN FILM

Tuffpaulin VCI is manufactured using SMP technology, 6 layered cross laminated multi layered plastic film. It is with very high puncture resistance, high tear resistance, improved tensile strength, higher dart impact strength, higher resistance to tear propagation, excellent moisture barrier and is used in demanding applications.

TUFFPAULIN VCI is specially designed product for the packaging of heavy equipment, armament, pallets, vehicles, automotive parts, engines, wind mills, power plant equipment, chemical plant equipment etc,.

TUFFPAULIN VCI is made from ultra-high strength polymer film with complex formula additives. Its cross layered structure is interconnected by polymer materials and can maintain stability under extreme pressure, sunlight, or dart impact.




VCI STRENGTH FABRIC

VCI Strength Fabric is a woven fabric made on circular knitting machines from specialized high strength HDPE/PP resin with dosages of UV protection and optical brighteners made from Virgin polymers.

It is woven on automatic lines to ensure adequate strength is achieved by a Warp and Weft structure of the material.

Strength fabric by its name is symbolic to not just the advantage of High Strength but also excellent moisture penetrations properties and oxygen transmissions.It is laminated on both sides with Poly Ethylene of approx 20 gsm-25 gsm on each side with a hot lamination process and cannot be easily peeled off.

Strength Fabric is general white on the outside,can be customized. Strength Fabric generally is available in 8x8 or 10x10 mesh which means there are 8 -10 PE/PP fibers in each direction in a 1 sq inch area. It has an extremely low moisture penetration and hence can be used for protection again rain, snow or water for longer duration.

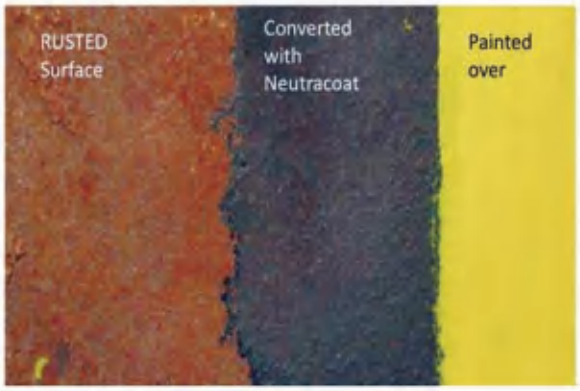
RUST REMOVER

NEUTRASAFE RUST REMOVER RR501/502

Neutral-Safe Rust Remover RR501/502 Neutral-safe Rust Remover has a pH of 5.5 which is the same pH as of human skin. You can touch it directly with your hands. Rust removing time is 5-10 minutes, or longer if the rust is severe.

RR501/502 is a powerful oxidation remover designed for use on ferrous and non ferrous metal, various steels, iron, cast iron and copper metals & aluminum. It only react with rust on metal surface. It can work in cavities,crevices and volutes and other parts.It can remove rust and oxidation safely and quickly.

NEUTRASAFE RUST CONVERTER



Neutrasafe Rust Converter is a powerful oxidation converter designed for use on various steels, iron, cast iron and copper & aluminum. Neutrasafe Rust Converter is a aqueous solution designed to convert rust and oxidation safely and economically. It converts to stable black coating. The biggest advantage is that the components do not get rusty again after removing from solution which is case in Acidic Rust removers and forms black inactive layer on the metal surface which can then be painted for longer life. Applying more coatings on the black layer can achieve better rust prevention effect.

AQUEOUS CLEANER AQ04

AQ04 is a water based cleaning agent based on organic compounds which effectively dissolve oils, light cutting oil, finished oil, lubricating oil, and general dirt on metal surfaces. It plays a role in fully dissolving.The product is totally free from any irritating chemicals that are usually present in generic cleaners.

AQ04 can be dosed between 2-5% in water depending upon the dirt level on the part and cleanliness level required. This can be used in Spray Jet Washers, Ultrasonic washer or manual cleaning of large equipment using sponge. AQ 04 is recommended for both Ferrous and Aluminum.

RUST-X®

VCI EMITTERS

VCI EMITTERS 5/11

VCI Emitters are used to protect electronic and metal components from the wrath of corrosion. VCI Emitters can be placed in the vicinity of the electronic and metal components, which are in an enclosed environment. The VCI molecules evaporate from the breathable membrane and provide long-term corrosion protection from humidity and corrosive gases.

VCI5 protects volume 0.14m^3/142 liters
VCI11 protects volume 0.31m^3/311liters

VCI FOAM VCI 798/708

VCI798 foam is used where cushioning or impact protection is required to the parts being protected. The foam is compressible and can be compacted and fitted into tight spaces and can also be placed within boxes having components with uneven geometry and takes the shape of the void. This can also be used to protect high value automotive and aerospace components, electrical, electronic or mechanical equipment.

The foam has a high level of VCI emission owing to a 3-D structure and infinite sites emitting VCI molecules compared to VCI Paper or VCI Film.

VCI798 foam is very simple and convenient to use. It can be used during production or assembly.Can be directly adhered to metal surfaces.In a sealed space, check the surface to ensure that the surface of the device to be pasted is clean. Remove the protective strip at the bottom of VCI foam and attach it to the clean surface.

Dimension: 25cmx25cmx0.64cm

white 25cm×25cm×0.64cm

VCI POWDER VCI 4201

VCI 4201 powder can supply corrosion protection for boilers, pressure vessels, heat exchangers and refinery equipment, oil and gas industries, chemical plants, buildings and infrastructure as dry removable protection.

Preserving these hollow components is achieved by spraying or fogging with VCI powder using air spray or compressed air or by pouring.The vapor corrosion inhibitor powder evaporates slowly and drifts into hard to reach areas within the component. As much as possible, it is important to form a sealed, airtight entity.

Packaging:10KG/barrel;22.7KG/barrel

It conforms to MIL-I-22110 specifications

RUST-X®

ZORB-IT DESICCANT

VCI EMITTER+DESICCANT VCI 4500

VCI4500 VCI EMITTER + DESICCANT Pouch prevents corrosion to the metallic components in the vicinity of these pouches. The specially designed pouch controls corrosion by the unique SMP Technology (Speedy Moisture Passivation) VCI Chemicals that release VCI to passivity the moisture in the surroundings and start an instantaneous action. The desiccant presents in the pouch absorb moisture and traps it in the sieves of the desiccant. The dual action pouch is made to avoid confusions that are commonly caused related to dosage levels of desiccant and emitter to the end customers in the packaging. Emitter + Desiccant are in the form of powders which provide a higher surface area to the chemicals for vaporization or absorption compared to tablets etc. The special combination of desiccating materials as well as VCI emitter which come into action within seconds of placing in the containers provide an unmatched system of preservation of Metallic and Non Metallic Components.

GEL DESICCANT-827

Gel Desiccant-827 is the most effective moisture absorber with highest absorption capacity. Moisture during sea transportation can have damaging effects to the goods in transit such as corrosion, mould/fungus, dampness, coagulation of chemicals etc.

It has the capability to absorb as much as 250% of moisture without releasing water.

The moisture absorption process is rapid and continuous due to the specialised chemicals, which absorb moisture at all humidity ranges. This effectively reduces dew-point within 4-5 minutes of placing the desiccant within enclosed volume. It has the capability to reduce the relative humidity to below 20-30% RH within a short span of time.

Dimension:26cm×13cm

Weight: 250 g/pouch

Protected volume:0.25m^3/pouch enclosed

ZORBIT DESICCANT

Zorbit Desiccant is a moisture absorbing/ drying agent product with a special formula to lower the moisture of air inside a closed space and solve the corrosion in humid environments.

Moisture during sea transportation can have damaging effects to the goods in transit such as corrosion; fungal of textiles and clothing; affect the circuits of electronics; leather moldy; pharmaceuticals damp; copper, brass, and silver not bright.

Due to changes in air temperature and volume, moisture is into the container as it breathes. The absorbed moisture condenses as the temperature decreases,then, deposited on the surface of the packaging, causing adverse effects inside the packaging. Zorbit can help to adsorb trapped moisture and store in Zorbit pouch.

Zorbit Gel desiccant:

Zorb-It Gel desiccant has the capability to absorb as much as 325% of moisture without releasing water.It reduces the chances of container rain, which occurs due to condensation of water on container.The moisture absorption process is rapid and continuous due to the specialised chemicals, which absorb moisture at all humidity ranges.

Zorbit Clay desiccant:

Zorbit clay desiccant is with strong adsorption and natural clay inside the packaging, the pouch is packed in special Tyvek paper to enhance the strength of packing and stop any reversible release of water to the surroundings. It can be used to protect metal parts, textiles, leather, clothing chemicals, etc,. This desiccant can be placed together with the goods and will not damage items in packaging due to dust or leakage. It is pure natural and does not contain any chemical additives.Environmentally friendly.

Packaging: 50g/pouch
100g/pouch
250g/pouch

Hydrogen SufideGas Absorber Sachet

H2S Zorber-35 is a pouch containing an indicating powder that absorbs corrosive sulfurous gases such as hydrogen sulfide and volatile mercaptans. Unlike other products on the market, it will not release the corrosive gases back into the atmosphere. It is constructed from breathable Tyvek® on one side and clear PET film.

RUST-X®

RUST PREVENTIVE FOR TANK

Corrosion protection of process plant and equipment is a critical task which requires synergistic combination of different corrosion control technologies. Volatile corrosion inhibitors(VCI's) have been found highly useful in protection from corrosion for various process equipment during construction, testing,service&storage.

Rust-X VCI's have an advantage of a multi-modal protection machanism:

1.Evaporating and combining with moisture droplets and protecting in vapor phase
2.Setting on to the metal surface and forming a multi-molecular film that inhibits corrosion
3.Dissolution in water and penetration into soil and concrete to reach the rebar and metal and protecting it from corrosion.
4.Forming a mixture with soil/concrete and migrating towards metallic surface offering them protection.

VCI dosing&protection method new tanks

1.New tanks-sand bed

It is always advisable to use VCI protection right from the beginning at the time of construction. This improves inhibition efficiency as well homogeneity in the base plate protection.
The VCI chemicals should be placed closest to the metal surface. Therefore after forming the base of sand/gravel the VCI chemical may be spread on the base at a dosage level of 2kg/sq meter by manually spreading or sprinkling. The tank bottom may be directly placed touching this powder for highest effectiveness.
This dosage should be based upon the service life and corrosion inhibition required and should be between 1-2kg/10m2 of the surface area.

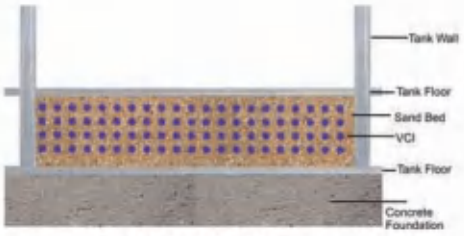


Fig 1: VCI mixing in the sand bed

2.New tanks-inhibitor distribution system

New tank beds can be fitted with an inhibitor distribution system under the tank bottom. This can be an array of pipes in a ring or spider fashion which can be fed with liquid inhibitors that flow and enrich the sand bed with corrosion inhibitors. These inhibitors vaporise and with the natural diffusion process under the tank bottom, spread and deposit on the tank bottom plate and protect it from corrosion.
The inhibitors are very effective and can create a corrosion inhibiting environment for years. The inhibition efficiency maybe monitored with the use of ER probes and the inhibitor replenished when required.

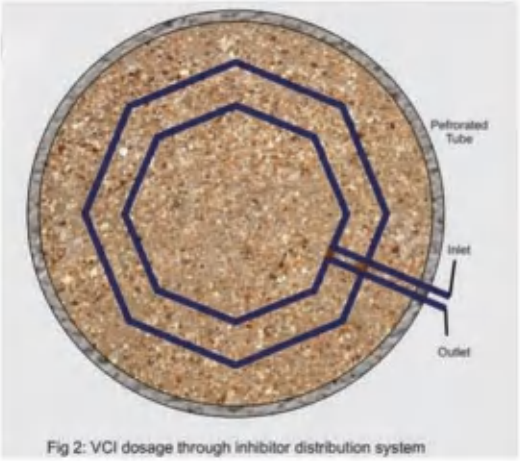


Fig 2: VCI dosage through inhibitor distribution system

VCI dosing protection method old tanks

1.Chime feed

The VCI powder may be dosed around the perimeter of the tank by placing the delivery tube with perforated holes or slots around the chime. The tube covered with a masking tape or a sealing sheet to keep it in place and also to prevent the powder/slurry to leak out from the tube. The powder or slurry can be fed into the tube from which it flows into the crevices and gaps under the bottom of the tank. Also the regular breathing action of the tank bottom would assist in suction of this slurry under the bottom plates. This method allows VCI's to effectively reach only a few meters from the walls.Suitable for small tanks.

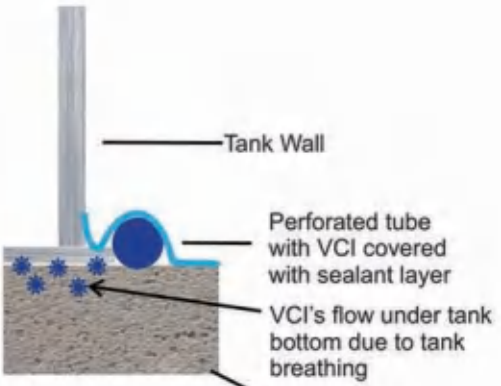
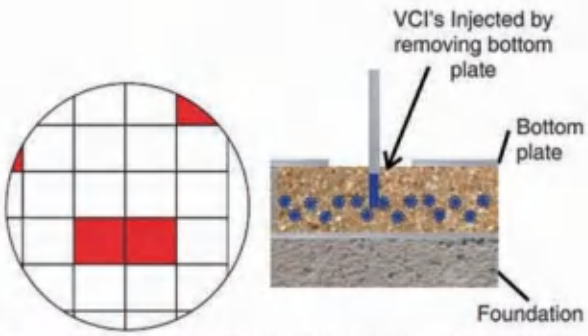


Fig 3: Chime Feed



The plates that are marked as corroded and that require to be changed are marked and during the change of plates the inhibitors are injected under the plates

Fig 4: Feeding under the tank bottom plates

2.Bottom plate injection system

The VCI's can also be injected under all the floor plates by drilling injection holes in the floor plates or during repair and replacement of the floor plates. The VCI's may be injected using high pressure systems to push VCI powders into the soil bed and create a corrosion inhibiting enviroment.

A dosage of 1-2kg/10m2 of the powder is recommended into the soil bed in order to have an effective inhibiting system.This method allows VCI's to effectively reach only a few meters from the walls. Suitable for small tanks.

3. Underside injection

A perforated or slotted tube is drilled under the tank bottom and inhibitor fluid is injected as slurry into the sand bed. The inhibitor is breathed and moved within the sand bed due to normal breathing action of the tank bed and evaporation of the inhibitor fluid within the bed.

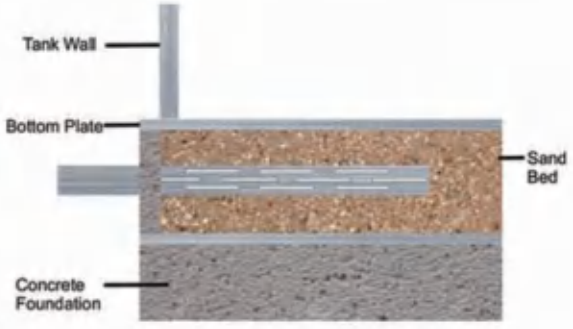


Fig 5:Underside Injection System

RUST-X®

Zhongzhen Dexing's products

VCI-S-1297 water-based concentrate

VCI-S-1297 is a water-based concentrate designed as a complete replacement for oil-based preventives. It can form a transparent semi-dry or dry film and still has excellent performance at dilution ratios.

VCI-Y-1709 VCI oil

VCI-Y-1709 is an oil-based vapor corrosion inhibiting concentrate for use with lubricating, hydraulic preservation oils, and provides excellent protection in sheltered outdoor/indoor conditions. It offers a tenacious film, which clings to metal surfaces as well as vapor inhibitors into the air above the oil. The vapors condense and form a protective barrier on metal surfaces that are not in contact with the oil. This combination allows complete protection to internal system parts.

VCI-ST-1390 VCI coating

VCI-ST-1390 coating is an excellent outdoor rust preventive coating, it provides protection in outdoor, unsheltered applications for three years. It provides a fast-drying thixotropic coating that forming a non-flammable, self-healing protective barrier. Thermally stable when dried from -40°C to 200°C. The coating is ultraviolet resistant giving optimal outdoor performance without cracking or chipping upon prolonged exposure to sunlight.

VCI-ST-1390L is for railway system.
VCI-ST-1390Z is for paper industry.
Color:transparent, grey and so on.

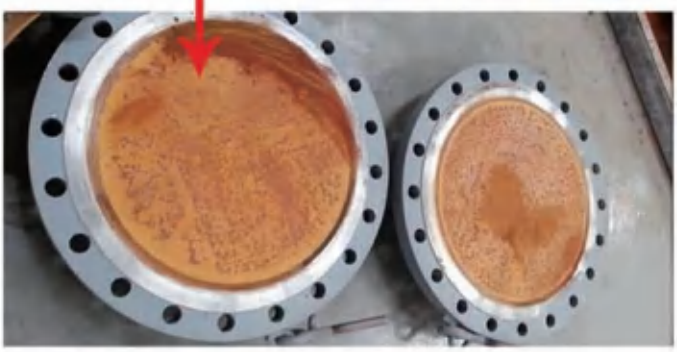
VCI-SQ-559 cleaner

VCI SQ-559 cleaner is a highly effective water-based cleaning degreaser with rust preventive properties. It can dissolve the oil, grease, paraffin and wax.

CX-1522 rust remover

CX-1522 effectively removes rust and tarnish from metal. It removes corrosion from metal without creating waste disposal difficulties and is more operator friendly than traditional rust removers. It is completely organic.

BEFORE BEING REMOVED



AFTER BEING REMOVED