



# **RUST-X USA**

## **Technical Datasheet**

**Product: RUST-X VCI Masterbatch**  
**Grade: 3100 PC**

**TDS No. 400098**

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### Product Description

VCI Masterbatch 3100 PC is an anti-corrosion master batch designed for both ferrous and most of the non-ferrous metals.

The VCI (Volatile Corrosion Inhibitor) additives are partly based on chemicals with migration ability and vapor pressure to release the active anticorrosion molecules from the film and out in the environmental air to protect the metal packed from corrosion.

Extrusion of polyethylene film with VCI MB-3100 PC will produce a finished product that combines the properties of polyethylene resin and the VCI which will solve the corrosion problems. It is available in neutral colour and desired film colour can be made by adding a Colour Masterbatch by the manufacturer.

The 3100 PC Masterbatch is free from Secondary Amines and Nitrites and complies to REACH, ROHS and TRGS 615 rules.

The film made using this masterbatch passes the German Razor Blade test & VIA test of the film as well as Salt Spray Tests.

### Product & Application Images



### Vapor Inhibiting Ability Test as per TL 8135-0043

Blank Sample	Protected with VCI Film made from VCI MB 3400 BIO @5%
	
Grade 0 = Corrosion on the surface	Grade 3 = Good Corrosion inhibiting effect with no sign of corrosion

### German Razor Blade Test for Contact Corrosion protection in the presence of water

Blank Sample	Protected with VCI Film made from VCI MB 3400 BIO @5%
	
Grade 0 = Corrosion on the surface	Grade 3 = Good Corrosion inhibiting effect with no sign of corrosion

### Application

VCI Masterbatch 3100 PC can be blended with polyethylene resin (LDPE/ LLDPE/ HDPE) depending on the thickness of the film or application and requested shelf life. The length of protection anticipated by film containing VCI Masterbatch 3100 PC is 5 years when extruded with ideal processing guideline. We recommend that an evaluation is made in every single case to confirm that the anticorrosion effect is fulfilling the demands.

Monolayer Films – Suggested loading is 5% in 95% resin

Co Ex Film - Suggested loading is 5% in the inner and middle layer of the coex film along with 95% resin.

Ease of extrusion – The film can be processed at regular temperatures of 160 – 190 degrees C as normally used to process Polyethylene grades without any changes in any machine design. There shall be no crystallization on the machine rollers, dies or air rings.

Thermal stability of film – The final film is thermally stable and can be used in warm or hot climates without any problems.

### Properties

Physical Properties		Test Method	Value
Colour		Visual	Transparent or Natural
Odour			Mild
Specific Gravity of Granules			0.92-0.94
Bulk Density			0.5-0.60
Physical Form			Pellets
Tensile Strength of film	MD	ASTM D 882	160 kg/cm <sup>2</sup>
@ 100 micron	TD	ASTM D 882	150 kg/cm <sup>2</sup>
Elongation	MD	ASTM D 882	400%
@100 micron	TD	ASTM D 882	400%
Razor Blade Test @ 5-10% (based on thickness of film)			Pass Grade 3
Vapor Inhibiting Ability Test VIA Test @ 5%		TL 8135 0043	Pass Grade 3
Salt Spray Test @ 5% & 150 micron film			500 hours +

# RUST-X USA

## Your Global Corrosion Prevention

### Packaging Available

100 kg barrels  
25 kg bags  
20 kg bags

### Disposal

Wastes should be disposed off in accordance with local regulations.

**Recommendation:** Do not allow product to reach sewage system.

Disposal must be made according to official regulations.

Packaging that may not be cleansed must be disposed off in the same manner as the product.

### Safety Information

RUST-X products do not contain Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent Chromium (Cr6), Polybrominated biphenyls (PBB), or Polybrominated di-phenylether complying with the restricted substances listed in Article 4(1) of the RoHS Directive. RUST-X Rust Preventive Oils are also REACH Compliant for exports to the European Union.

### Declaration

This Data sheet and information it contains is considered to be accurate at the date of printing. No representation or warranty, expressed or implied is made as to the accuracy or completeness of the data and information contained in this publication. It is the User's obligation to evaluate and use products safely and within the scope advised in the data sheet and to comply with all applicable laws and regulations

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