

# OptiRustBusta

OptiRustBusta is a single component waterborne heavy duty, high build, anti-corrosion, elastomeric coating for industrial applications. OptiRustBusta forms a highly elastic seamless waterproof barrier applicable for interior and exterior applications.

**Colours:** Battleship Grey, Black, Mill Green, Moss Green, Pearl White, Radiant Blue, Red Oxide, International Orange

### PRODUCT USES

#### Anti-Corrosion for exposure in a wide variety of environments;

- Protection of steel structures like tanks, bridges, maststowers, offshore structures, Refineries, Petrochemical and Chemical plants.
- Potable water tanks exteriors.
- Metal on buildings like roofs, siding, lintels, flashings, ductwork, cladding etc.
- Steel construction like pipe racks, piping, towers, supports etc.
- Storage tank exteriors like gas, oil, grain etc.
- Equipment like harbor cranes, truck bodies, salt spreaders etc.
- Lighthouses
- Duplex coating for galvanized steel.
- Bolt clusters
- Cables and other flexible substrates.
- Steel reinforcing in concrete (repairs only)
- Joints between steel and concrete.

#### Special Uses:

Waterproofing of concrete and other porous surfaces

### ADVANTAGES

- Provides excellent protection against corrosion, even in severe marine environments – 10-year warranty.
- No primer needed except for new galvanized steel - can be applied to weathered steel or minimal prepared steel and weathered galvanized steel substrates.
- Surface tolerant.
- Forms rubber-like waterproof barrier with permanent elasticity.
- Fills crevices.
- Bridges gaps.
- No “mud cracking” or delamination
- Excellent edge covering. Testing proofs 100% edge covering at a round edge and still a 41% coverage at a 90° corner.
- Single component which allows for a longer pot life and is ready to use - less wastage, no mixing or thinning required.
- No settlement of pigments and no skin forming.
- Highly chemically resistant, UV resistant and elasticized - which prevents cracking and peeling.
- Seals out moisture, oxygen and aggressive chemicals e.g. salts.
- Contains no chromates, lead or strong solvents.
- Resistant to the effects of long-term weathering, UV light, salt water and most environmental atmospheric chemicals.
- Thixotropic non-sag properties allowing applications in thick films resulting in excellent edge protection.
- Highly resistant to cracking and mechanical damage.

- It can be applied to most substrates and has excellent adhesion properties.
- Optima Coatings OptiRustBusta has been tried, tested and proven in very aggressive corrosive environments.

#### COVERAGE

- 400g per m<sup>2</sup> per coat.

#### SURFACE PREPARATION

- Substrates must be sound, clean and free from all loosely adhered rust.
- Degrease with Optima Coatings OptiDegreaser as per instructions and rinse thoroughly with water to obtain a water-break-free surface.
- Prepare the surface by mechanical St 2 for hand cleaning and Sa 2 or Sa 2½ for grit blasting. (Swedish Standards for cleanliness.)
- Remove all dust and debris by using clean compressed air or high-pressure wash.

#### APPLICATION

- Stir lightly **only** if necessary.
- Do not dilute.
- Apply with a brush or airless spray (do not use conventional spray).
- Apply the first/primer coat at aWFT of 300 microns to achieve a DFT of 175 microns. (Coatings thicknesses may vary according to project specification)
- Apply a stripe coat (if specified), to all edges and fasteners using a contrasting colour. Allow to a touch dry coating before applying the second coat (1 hour).
- Apply the second/final coat at a WFT of 300 microns to achieve a TOTAL COATING DFT of 350 microns.

#### CLEANING

- Use water to clean tools and airless spray equipment.

#### IMPORTANT

- Store in a cool, dry place (>4°C) in original tin with lid firmly closed.

#### SAFETY PRECAUTIONS

- Not for internal consumption.
- Keep out of reach of children.
- Skin or eye contact: If splashed in the eyes or on skin, rinse off immediately with clean warm water.
- Spray application: Areas where spraying takes place should be clean and well ventilated. If necessary, use suitable respiratory safety equipment and protective clothing.

#### TECHNICAL DATA

Pack size	20kg
No. of components	Single pack
Mixing ratio	N/A
Corrosion Category according to DIN EN ISO 12944	C5M Very High marine climate
Touch Drying time	1 hr
Over coating time	1 - 4hrs depending on ambient conditions
Full Cure	3 – 7 days
Volume solids	58%
Mass solids	67%
(formulated from acrylic resins and zinc phosphates containing no PVC)	
Wet film thickness	300 microns
Dry film thickness	175 microns
Airless Spray Application	Tip Range 17 – 23 Thou. 100 – 200 bar pressure at the tip.
Application temperature	Surface must be 5°C above dew point and below 45°C. Relative Humidity maximum 90%
Flexibility / Elasticity	Excellent >200%
Weathering	Excellent
U.V Resistance	Good
Abrasion resistance	Excellent
Chemical resistance	Good (See Chemical Resistance Chart)
Density	1,25 kg/litre
Viscosity 180 P – 220 P (Brookfield 20 Rpm)	
VOC Content	8 g/lt VOC compliant.

Fire Hazard / Flashpoint	Non-flammable
Cleaner	Water
Storage	Store in a cool, dry place (>4°C) in original tin with lid firmly closed
Storage Stability	2 years minimum provided the original container is sealed.

**Test results:**

- Shore A hardness according to ASTM D 2240 of 325 micron film: 90.
- Impact resistance to ASTM D 2794: > 10, 0 Nm direct impact and indirect impact.
- Erichsen Cupping test of 331 micron film: rupture of steel at 12, 65 mm and no cracks or detachment of the coating.
- Abrasion resistance by falling abrasive according to ASTM D 968: 5 micron loss of thickness after dropping 100 kg Ottawa sand.
- QUV test according to ASTM G 53, 4 hours UV @ 60°C and 4 hours condensation @ 50°C and UVB 113 lamps:
- Resistance to high temperature according to ASTM D 2485: no adhesion or flexibility changes after 24 hours at 100 °C in air and in water.
- Water vapour transmission according to ASTM D 1653
- Method B: Humidity differential of 48, 3 % and film thickness of 352 micron: 9,9 g/m<sup>2</sup> per 24 hours.
- Water resistance according to ASTM D 870: no defects after 12 months immersion at room temperature.
- Salt spray resistance according to ASTM B 117:
- Surface unchanged; corrosion in the scratch with rust stains; 0, 5 – 2 mm blistering along scratch after 1000 hours.
- Kesternich test according to ISO 3231 in sulphur dioxide atmosphere: white stains on the surface and white corrosion in the scratch after 30 cycles of 8 hours @ 40°C and 100 %RH with SO<sub>2</sub>.
- Accelerated Corrosion Test report by AcryMatic Coating Aps, Denmark (Nov. 2003) on various steel and galvanized panels prepared and exposed to different laboratory and practical conditions are also available for scrutiny.

**The following standards apply:**

- ARP 006. A Guide to health hazards and personal protection in the paint industry.
- ASTM D4587 – Fluorescent UV-condensation exposures of paint and related coatings.
- ASTM B117 – Practice for operating salt spray (fog) apparatus.
- ASTM D3363 – Film hardness by pencil test.
- ASTM D522 – Mandrel bend test of attached organic coatings.
- ISO 2409 – Paints and varnishes – Cross-cut test.
- ISO 2812 – Paints and varnishes – Determination of resistance to liquids.
- ISO 4624 – Paints and varnishes – Pull-off test for adhesion.
- ISO 4892 – Methods for exposure to laboratory light sources.
- SABS ISO 12944-4:1988. Code of Practice – Paint and varnishes – Corrosion protection of steel structures by protective paint systems. Part 4 – Types of surface and surface preparation.
- SABS ISO 12944-6:1988. Code of Practice – Paint and varnishes – Corrosion protection of steel structures by protective paint systems. Part 6 – Laboratory performance test methods.
- SANS 1091 -This standard identifies a number of colours for use in various industries, mainly for colour identification and coding. The selected colours are linked to the Natural Colour System.
- SANS 2808. Paints and Varnishes: Determination of film thicknesses.
- SANS 4628 – 1. Paints and varnishes – Evaluation of degradation of paint coatings – Designation of intensity, quantity and size of common defects – Part 1: General principals and rating schemes
- SANS 4628 – 2. Paints and varnishes – Evaluation of degradation of paint coatings – Designation of intensity, quantity and size of common defects – Part 2: Designation of degree of blistering
- SANS 4628 – 3. Paints and varnishes – Evaluation of degradation of paint coatings – Designation of intensity, quantity and size of common defects – Part 3: Designation of degree of rusting
- SANS 4628 – 4. Paints and varnishes – Evaluation of degradation of paint coatings – Designation of intensity, quantity and size of common defects – Part 4: Designation of degree of cracking
- SANS 4628 – 5. Paints and varnishes – Evaluation of degradation of paint coatings – Designation of intensity, quantity and size of common defects – Part 5: Designation of degree of flaking.
- SANS 5146. Paints and varnishes – Resistance to impact.
- SANS 5776. Adhesion of coatings (direct pull-off method).
- SANS 7253. Paints and varnishes – Determination of resistance to neutral salt spray (fog)
- ISO 8501-1. Preparation of steel substrates before application of paints and related products – Visual assessment.

*Technical details above are provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards using raw materials of superior quality. Consequently we believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that the user conduct their own suitability tests before use. To retain sheen and colour consistency of your paint, always make sure that the batch numbers are the same on all paint containers that you purchase.*

*Updated: April 2018 (this supercedes all previous publications)*