

SELECTION & SPECIFICATION DATA

Generic Type	Self-curing inorganic zinc silicate.
Description	A weldable pre-construction inorganic zinc primer for shop use only.
Features	<ul style="list-style-type: none"> • Welds made over Carboweld 11 coated steel are equal in every respect to welds made to uncoated steel. • Designed to protect steel during construction phase of projects under normal conditions. • Can be topcoated for additional long term protection for atmospheric exposures. • Weld spatter does not adhere to or damage the coating. • Can be welded as quickly and easily as bare steel at production line speeds without loss in strength or consistency of the weld. • Dries to touch and to handle in 3 to 5 minutes.
Color	Pink
Finish	Flat (0-10) Consult StonCor Africa Technical Service for appropriate topcoat specific for intended service.
Weld Preparation	Automatic – Carboweld 11 when applied at recommended thickness may be welded at speeds up to 1.2m per minute. This is dependent upon plate thickness and bead size. This includes the following process: 1) Submerged arc 2) Flux core 3) Short arc and 4) Metal Inert Gas (MIG).
Dry Film Thickness	15 to 20 microns in a single coat Thicknesses up to 40 microns are also acceptable
Solid(s) Content	By Volume: 43% Percentage Zinc Content in Dry Film: 85% ± 1%
Theoretical Coverage Rates	18,2m ² /litre at 15 microns
VOC Value(s)	Thinner # 33 (20%): 730g/l As Supplied: 696g/l These are nominal values
Limitations	For projects with extended construction phases consult StonCor Africa Technical Service for more suitable primers. For shop use only.

SUBSTRATES & SURFACE PREPARATION

General	Remove all oil or grease from the surface to be coated with Carboclean 250 in accordance with SSPC-SP1.
Steel	<p>Abrasive blast to achieve a sharp angular profile of 25 to 40 microns for most applications. Where high build topcoats are used, 40 to 60 microns blast profile is recommended.</p> <p>Immersion (see Limitations): ISO 8501 Sa2½</p> <p>Non-Immersion: ISO 8501 Sa2</p>

Carboweld 11

PRODUCT DATA SHEET



MIXING & THINNING

- Mixing** | Power mix base, then combine parts, sifting zinc filler slowly into base and mix with continuous agitation. Mix until free of lumps. Pour mixture through 30 mesh screen. DO NOT MIX PARTIAL KITS. Keep under mild agitation during application.
- Thinning** | Not normally required, but may be thinned using Thinner # 33 up to 20%. Use of thinners other than those supplied or recommended by StonCor Africa may adversely affect product performance and void warranty, whether express or implied.
- Pot Life** | 48 Hours at 25°C and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

- Spray Application** | Agitate the mixed material continuously during the spraying operation. If spraying stops for more than 15 minutes, recirculate the material remaining in the spray line.
- Conventional Spray** | Pressure pot with dual regulators, agitator, 10mm I.D. minimum hose, 15m maximum material hose length 1.8mm I.D. fluid tip and appropriate air cap. Keep pot at same level as application.
- Airless Spray** |
 - Pump Ratio:** 45:1 (min)
 - GPM Output:** 3.0 (min)
 - Material Hose:** 10mm I.D. (min)
 - Tip Size:** .019 to .023"
 - Output PSI:** 1500-2000
 - Filter Size:** 60 MeshTeflon packings are recommended and available from the pump manufacturer.
- Brush** | For touch-up of areas less than 0,1m² only. Use medium bristle brush and avoid over brushing.
- Roller** | **DO NOT APPLY BY ROLLER**

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	-18°C (-0°F)	-18°C (-0°F)	-18°C (-0°F)	30%
Maximum	54°C (129°F)	93°C (199°F)	54°C (129°F)	95%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Final Cure
-18°C (-0°F)	2 Hours	5 Days
4°C (39°F)	40 Minutes	12 Hours
16°C (61°F)	15 Minutes	6 Hours
27°C (81°F)	5 Minutes	4 Hours
38°C (100°F)	3 Minutes	2 Hours

Drying times are based on a 20 to 40 micron dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. For shop applications or if the relative humidity is too low, the curing time can be reduced by raising the relative humidity by steam or water spray on the coated surface after an initial dry time of 1 hour at 25°C.

Curing Details | **Relative Humidity: 50%**

CLEANUP & SAFETY

Cleanup	Use Thinner # 2. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety	Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.
Ventilation	When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved respirator.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 12 Months at 25°C Part B: 24 Months at 25°C Shelf life (actual stated shelf life) when kept at recommended storage conditions and in original unopened container.
Shipping Weight (Approximate)	5 Litre Kit Part A: 4.18kg Part B: 3.20kg 15 Litre Kit Part A: 13.85kg Part B: 9.25kg
Storage Temperature & Humidity	4 to 43°C 0 to 90% relative humidity
Flash Point (Pensky Martens Closed Cup)	11°C for Base
Storage	Store indoors

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PRODUCT DATA SHEET



WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.