

Selection & Specification Data

Generic Type Self curing, zinc filled inorganic weldable holding primer. Base and zinc filler mixed prior to application.

Description A weldable inorganic zinc primer. Welds made over Carboweld 11 coated steel are equal in every respect to welds joining uncoated steel prior to fabrication. Carboweld 11 protects cathodically for periods exceeding 12 months in normal and marine environments. Weld spatter does not adhere to or damage the coating. Coated steel can be welded as quickly and easily as bare steel and production line speed, without loss in strength or consistency of the weld. Applied by conventional or airless spray method. Dries to touch and can be handled in 3-5 minutes. May be top coated with Carbozinc 11 and most conventional paints and coatings. Carboweld 11 is used as a preconstruction primer in shipyards and fabricating shops. It has many cost saving advantages over conventional shop primers.

Welding Data Automatic Welding
Applied at recommended thickness may be welded at speeds up to 122 cm. per minute. This is dependent upon plate thickness and bead size and includes the following processes:

1. Submerged Arc
2. Flux Core
3. Short Arc
4. Metal Inert Gas (MIG)

Hand
Can be easily welded using all Electrodes with MIL E numbers between 6010 and 10018

Gloss Matte

Colour Grey

Primers None. Apply over suitably prepared steel, cast iron and other as recommended.

Topcoats May be topcoated with Carbozinc 11, epoxies, epoxy-tars, vinyls, acrylics, chlorinated rubber, silicones, and other compatible non-saponifiable coatings. Consult with Carboline technical service for specific recommendations.

Dry Film Thickness Recommended: 20-40 µm

Solids Content By Weight: 48 ± 2%
Percent total zinc in the dry film: 85 ± 1%
By Volume: 29% (theoretical)

Theoretical Coverage Rate 11.5 m²/l at 25 microns
Allow for loss in mixing and application.

Mix Ratio Part A: 11 litres
Zinc Filler: 7 kg

Selection & Specification Data - continued

Dry Temp. Resistance Continuous: 399°C
Non-Continuous: 427°C

Limitations Not recommended for exposure to acid, alkalis or solutions outside a pH range of 5 to 10, without suitable topcoat.

Substrates & Surface Preparation

General Surface must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.

Steel Immersion: Abrasive blast in accordance AS 1627.4 Class 3, to obtain 25-40µm blast profile.
Non immersion: Abrasive blast in accordance with AS 1627.4 Class 2, to obtain 25-40µm blast profile.

Application Equipment

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. **General Guidelines:**

Spray Application (General) Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as De Vilbiss and Graco.

Conventional Spray Use agitated pot. Maximum 15 mt. hose. Keep pot at same elevation as gun. If spraying stops for more than 15 minutes, blow material from hose back into pot. Pressure pot equipped with dual regulators, 9mm (3/8") I.D. minimum material hose, 1.8mm (.070") I.D. fluid tip and appropriate cap.

Airless Spray Pump* Ratio: 30:1 (minimum)
Output: 12 litres/min.
Material Hose: 9mm (3/8") I.D.
Tip Size: .019"-.023" Reverse Clean
Output PSI: 1500-2000
Filter Size: 60 mesh
*Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller (General) Not normally recommended but for minor touch-up only. Use medium bristle brush or good quality short nap roller. Avoid re-brushing or re-rolling.

Mixing & Thinning

Mixing Power mix base, then combine with filler in recommend ratio. Mix as supplied. Sift zinc filler slowly into base with continuous agitation. Mix until free lumps. Pour mixture through a 30 mesh screen.

Ratio Part A: 11.00 litres
Zinc filler: 7.0 kg (1 litre)
When less than full kit is used, mix by weight:-
100 parts Part A : 73 parts Zinc Filler.

Thinning Thin up to 12% by volume with Thinner #21 in cool weather (below 13°C). For hot or windy conditions, use Thinner#33. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Pot Life 48 hours at 24°C and less at higher temperatures. Pot-life ends when material becomes too viscous to use.

Cleanup & Safety

Cleanup Use #2 Thinner or Acetone. 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 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 vapour concentration from reaching the lower explosion limit for the solvents used.

Cleanup & Safety - continued

Caution This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	4°-25°C	4°-25°C	4°-35°C	40-90%
Minimum	-18°C	-18°C	-18°C	10%
Maximum	54°C	93°C	54°C	95%

Do not apply when the surface temperature is less than 3°C above the dew point.

Special thinning and application techniques may be required above or below normal conditions.

Curing Schedule

Surface Temp. & 50% Relative Humidity	Before Handling (Minimum Times)	Final Cure
-18°C	2 hours	5 days
4°C	40 minutes	12 hours
16°C	15 minutes	6 hours
27°C	5 minutes	4 hours
38°C	3 minutes	2 hours

*NOTE: Carboweld 11 will skin if left in open cans. Skinning has no effect on performance, but should be removed before using.

Packaging, Handling & Storage

Pack Sizes 12 litre Part A Zinc Filler
11 litres 7 kg (1 litre)

Flash Point (PMCC) Part A: 11°C
Thinner #21: 12°C
Thinner #33: 38°C

Storage Temperature & Humidity Store indoors.
4° -43°C
0-100% Relative Humidity

Shelf Life Part A: 18 months at 24°C
Zinc Filler: 24 months at 24°C

*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

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