

SELECTION & SPECIFICATION DATA

| | |
|-----------------------------------|--|
| Generic Type | Non-inhibitive polyamide epoxy |
| Description | A high performance, immersion grade (fresh & salt water) chemically cured epoxy primer. Suitable for use over suitably prepared mild steel, galvanised steel, other non-ferrous metals, and most GRP substrates. |
| Features | <ul style="list-style-type: none"> • Excellent primer for water and many aqueous chemicals immersion service when topcoated with an approved finish • Excellent adhesion to difficult substrates • Excellent holding primer • Excellent corrosion resistance • Complies with AS/NZS 3750.13 (2 pack epoxy primer), Types 1, 2 & 3. • Approved for use in NZ Food Processing Plants (see "Approvals NZ/AU" section) • AS4020 Potable Water Approval (see "Approvals NZ/AU" section) • Good abrasion resistance • Very good aged re-coatability • Resists splash and spillage or fumes of a wide range of chemicals • Easy application by brush, roller or spray • Ideal tie-coat over inorganic zincs • Versatile - can be used on most substrates under many different types of topcoat • Long pot-life • Excellent maintenance touch-up primer for hand-cleaned substrates • A user-friendly primer for epoxy or polyurethane systems in environments not suited to zinc primers due to acidic or alkaline fallout or splash & spill. |
| Colour | Standard: Buff NZ Only: Grey (10 litre kits only) |
| Gloss | Flat |
| Primer | <p>Self-priming. May be used as intermediate or tie-coat over zinc rich primers such as Carbozinc 858 series, Carbozinc 11, and Altra~Zinc® 605.</p> <p><i>Altra~Zinc® is a registered trademark of Altex Coatings Limited</i></p> |
| Film Build | 50 - 75 micron dry per coat Optimum DFT is 50 microns dry - Do not exceed 75 microns |
| Solid(s) Content | By Volume 50% |
| Theoretical Coverage Rates | <p>10 m²/litre at 50 microns 6.7 m²/litre at 75 microns Allow for loss in mixing and application.</p> |
| VOC Value(s) | 432 grams per litre (mixed) |
| Dry Temp. Resistance | <p>Continuous: 90°C (194°F) Non-Continuous: 121°C (250°F)</p> <p>Discolouration will be observed above 93°C</p> |

Carboguard 504

PRODUCT DATA SHEET



SELECTION & SPECIFICATION DATA

| | |
|-------------|--|
| Limitations | Not suitable for exposure to strong solvents. Avoid excessive dry film thickness. Exceeding 75 microns will compromise rate of cure and may result in solvent entrapment. Low temperatures, high humidity and poor ventilation will exacerbate the problem. |
| | Not intended for long term exterior exposures without a topcoat. Exterior exposure will cause early loss of sheen, possible discolouration and chalking. This will not affect the protective properties of the coating. |
| Topcoats | Epoxies, polyurethanes, intumescent base-coats, & antifoulings. |

SUBSTRATES & SURFACE PREPARATION

| | |
|-----------------------------|---|
| General | Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants as described in SSPC-SP 1 (AS 1627.1). |
| Steel | For optimum performance in industrial & marine environments, abrasive blast to SSPC-SP 10 (AS 1627.4 Sa 2½) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. Interior non-critical exposures: Abrasive Blast SSPC-SP 6 (AS 1627.4 Sa 2) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. For site repairs and where abrasive blasting can not be employed, power tool clean all surfaces to SSPC-SP 3 (AS 1627.2 St 3). |
| Galvanized Steel | Ensure there are no chemical treatments that may interfere with adhesion; and abrade (80 grit) or sweep abrasive blast the surface to establish a suitable roughness (typically 25 microns). Avoid aggressive preparation that may remove the zinc coating. <u>Cleaned and roughened galvanizing should be coated immediately after preparation, particularly in humid conditions above 50% RH. Do not allow adhesion-compromising zinc hydroxide (white rust) to form before application.</u> |
| Concrete | Concrete should be fully cured for 28 days at 21°C and 50% RH or equivalent. Remove all laitance by sweep abrasive blasting, HP Water-Jetting or acid etching. For maximum performance and to reduce the risk of pin-holing seal the prepared concrete with Carboguard 1340. |
| Previously Painted Surfaces | Check existing surface for solvent-resistance and compatibility before commencing work. Sweep abrasive blast or lightly sand to roughen surface and degloss the surface. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 "X-Cut" adhesion test |
| Stainless Steel | Surface profile should be dense and angular, achieving a minimum of 25 microns and is best achieved through abrasive blasting with non-metallic media such as aluminium oxide. |

MIXING & THINNING

| | |
|----------|---|
| Mixing | Mix each component separately, then combine and mix to the correct 4:1 proportions. |
| Thinning | Spray: Thinning requirement will vary depending upon conditions. Thin with Thinner #12 as required for good atomisation; typically between 5% - 20%. |
| | Brush / roller: Due to the initial lacquer dry characteristic of this coating additional thinning with Thinner #12 may be required for a smooth finish. It may be advantageous to use a slow evaporating solvent such as Thinner #25 in warm and/or windy conditions. |
| Ratio | 4:1 by volume (Part A : Part B) |
| Pot Life | 12 hours at 25°C (5 litre kit) |

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.

| | |
|-------------------------------------|--|
| General | 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. |
| Conventional Spray | Pressure pot equipped with dual regulators, 9.5 mm (3/8") I.D. minimum material hose, 1.8 mm (.070") I.D. fluid tip and appropriate air cap. Hold gun 300-350 mm from the surface and at a right angle to the surface. |
| Airless Spray | Pump Ratio: 30:1 Volume Output: 10 l/minute min. Material Hose: 9.5 mm (3/8") min. Tip Size: .015-.019" Output Press.: 2100-2400 psi *Teflon packings are recommended and available from pump manufacturer. |
| Brush & Roller (General) | The desired film thickness can be achieved in a single brush or roller coat. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 24°C. |

APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|-----------|-------------|--------------|--------------|----------|
| Minimum | 5°C (41°F) | 5°C (41°F) | 5°C (41°F) | 0% |
| Maximum | 32°C (90°F) | 50°C (122°F) | 50°C (122°F) | 85% |
| Optimum | 20°C (68°F) | 20°C (68°F) | 20°C (68°F) | 50% |

Industry standards are for substrate temperatures to be above the dew point.

CURING SCHEDULE

| Surface Temp. | Minimum Recoat Time w/ Epoxies | Minimum Recoat Time w/ Polyurethanes | Maximum Recoat Time w/ Epoxies | Maximum Recoat Time w/ Polyurethanes |
|---------------|--------------------------------|--------------------------------------|--------------------------------|--------------------------------------|
| 5°C (41°F) | 6 Hours | 8 Hours | 90 Days | 28 Days |
| 15°C (59°F) | 2.5 Hours | 5 Hours | 90 Days | 28 Days |
| 25°C (77°F) | 2 Hours | 4 Hours | 60 Days | 14 Days |
| 30°C (86°F) | 1.5 Hours | 3 Hours | 30 Days | 5 Days |

Curing schedule is based on 50 microns DFT at 50% RH.

Topcoating with E~Line® 379:

E~Line® 379 has a limited time to topcoat window; maximum adhesion is obtained by strictly observing maximum topcoat window times listed below. When in doubt light sanding to a matte finish prior to topcoating is recommended.

Maximum: 10 days @ 5°C; 7 days @ 15°C; 5 days @ 25°C; 2 days @ 30°C

E~Line® is the registered trademark of Altex Coatings Limited

| | |
|---------------------|---|
| Ambient Cure | Temperature Cautionary Note: The temperatures noted above refer to the time-weighted average substrate or coating temperatures NOT ambient air temperatures. In exterior situations surface temperatures can vary widely with sunlit surfaces often being greater than 20°C higher than the air temperature. |
|---------------------|---|

Carboguard 504

PRODUCT DATA SHEET



CLEANUP & SAFETY

| | |
|--------------------|--|
| Cleanup | Use Thinner #2, #12 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 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 vapour concentration from reaching the lower explosion limit for the solvents used. |
| Caution | This product contains flammable solvents. Keep away from sparks and open flames. |

PACKAGING, HANDLING & STORAGE

| | |
|---|--|
| Shelf Life | Part A: 24 months @ 24°C Part B: 24 months @ 24°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers. |
| Storage Temperature & Humidity | 4-38°C 0-95% |
| Flash Point (Setaflash) | Part A & B: 23°C |
| Storage | Store indoors and KEEP DRY |
| Packaging | NZ Buff: 1.25 litre, 5 litre, 10 litre kits NZ Grey: 10 litre kit AU Buff: 5 litre, 10 litre kits |

APPROVALS

| | |
|------------------------|--|
| Approvals NZ/AU | Food Processing NZ AsureQuality assessed & passed for food/beverage including dairy farm & factory non-incident contact. Ref: H3106. AS 4020:2005 Potable Water Approval AMS Laboratories Pty Ltd: Report No.: 1414240 Exposure ~15,000 mm²/L Applies to Buff colour only |
|------------------------|--|

WARRANTY

Manufactured and / or distributed in Australia & New Zealand by Altex Coatings under license to Carboline Company. 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 Altex Coatings 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 or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY ALTEX COATINGS OR 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. Altex Terms and Conditions of Trade, available at www.altexcoatings.com, apply in respect of all coating products and materials supplied, including samples.