

ACE-PRIME 421

SELECTION & SPECIFICATION DATA

Generic Type: Cross-linked epoxy.

Description: **Ace-Prime 421** is a high performance corrosion resistant primer and intermediate. Used either as a primer or an intermediate coat over steel and inorganic zinc primers. Can be topcoated with a broad variety of high performance finish coats. This coating represents the latest technology in high performance, rapid cure epoxy primers.

Features:

- Fast dry, fast recoat
- Excellent corrosion protection
- Excellent film build and edge protection
- Used as a primer or an intermediate coating
- Very good abrasion resistance
- High impact strength
- Low temperature cure
- No induction time
- Multiple coats per day
- Moisture tolerant during cure

Colour: Grey

Finish: Matt

Primers: Self-priming. May be applied over organic and zinc rich primers. A mist coat may be required to minimise bubbling over some zinc rich primers.

Topcoats: Acrylics, Epoxies, Polyurethanes, Alkyds.

Dry Film Thickness: 100 microns for mild environments and as an intermediate coat over inorganic zincs. 125-150 microns for more severe environments. Do not exceed 250 microns in a single coat. Excessive film thickness over inorganic zincs may increase damage during shipping or erection.

Ace-Prime 421 is suitable for a variety of immersion conditions. Please consult Wairau Paint Centre Technical Service for specific applications.

Solids Content: By volume, 69% \pm 2%

Theoretical Coverage Rate:

8.9 m²/l at 75 microns, and 5.4 m²/l at 125 microns. Allow for loss in mixing and application.

VOC Values:

As supplied: 330 g/l

This is a nominal value and may vary with colour.

Dry Temperature Resistance:

Continuous: 90°C Non-Continuous: 120°C

Discolouration is observed at high temperatures

General: Surfaces 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: Abrasive blast to SSPC-SP6 with a 25-50 micron surface profile.

GRP: Degrease and sand.

Concrete: Concrete must be cured 28 days at 24°C and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

APPLICATION EQUIPMENT

Spray Application (General): This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

Conventional Spray: Pressure pot equipped with dual regulators, 3/8" ID minimum material hose, .070" ID fluid tip and appropriate air cap.

Airless Spray:

Pump Ratio: 30:1 (min)

GPM Output: 3.0 (min)

Material Hose: 3/8" ID (min)

Tip Size: .017 - .012"

Output PSI: 2100-2300

Filter Size: 60 mesh

Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller (General) Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 24°C.

Brush: Use a medium bristle brush.

Roller: Use a short-nap synthetic roller cover with phenolic core.

SUBSTRATES & SURFACE PREPARATION

MIXING AND THINNING

Mixing: Power mix Part A separately, then add Part B and power mix for at least three minutes.

Mix Ratio: 4:1 (A to B) by volume.

Thinning:

Spray: Up to 12% with #2

Brush: Up to 25% with #33

Roller: Up to 25% with #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: 3 hours at 23°C.

Pot life ends when coating loses body and begins to sag. Pot life times will be less at higher temperatures. Thinning rates above 12% will shorten the working time to 2 hours.

CLEANUP & SAFETY

Cleanup: Use #2 Thinner or MEK. 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 and product is thinned, 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. 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 supplied air respirator.

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

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APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Normal	16°-20°C	16°-40°C	16°-40°C	0-80%
Minimum	10°C	3°C	3°C	0%
Maximum	30°C	50°C	43°C	90%

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. & 50% Relative Humidity	Dry to Touch	Dry to Handle	Dry to Topcoat
5°C	2 hours	16 hours	4 hours
15°C	1 hour	12 hours	3 hours
24°C	30 mins	6 hours	2 hours
32°C	20 mins	4 hours	1 hour
Surface Temp. & 50% Relative Humidity	Maximum Recoat Time w/ Epoxies	Maximum Recoat Time w/ Poly-urethanes	Maximum Recoat Time w/ Acrylics
5°C	30 days	90 days	14 days
24°C	30 days	90 days	14 days
32°C	15 days	30 days	14 days

These times are based on a 100 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. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat time is exceeded, the surface must be abraded by sweep blasting or sanding before the application of additional coats.

PACKAGING, HANDLING & STORAGE

5 Lt Kit

10 Lt Kit

Flash Point (Setaflash) Part A: 16°C
Part B: 15°C

Storage Temp. & Humidity 4°-43°C Store indoors.
0-90% Relative Humidity

Shelf Life: 36 months at 24°C