Altra~Build® 535

Multi-Purpose Epoxy Coating

Data sheet

FEATURES

Advantages:

- Exceptional corrosion protection
- Surface tolerant with abrasive blasting not required in most applications
- Good adhesion to tight rust
- Tolerates surface dampness at application
- Self priming for steel and masonry substrates
- Suitable for fresh and salt water immersion
- Excellent abrasion and chemical resistance
- Low temperature cure to minus 18°C
- Low VOC

Performance Data:

- Adhesion (ASTM 04541) – excellent
- Abrasion resistance (ASTM 04060) – excellent
- Humidity resistance (ASTM 02247} – excellent
- Salt spray resistance (ASTM 8117) – excellent
- Water immersion (ASTM 01308) – excellent
- Chemical resistance (ASTM 01308) – excellent

Approvals:

- AS 4020 – Potable water
- EPA for potable water
- Sydney Water Corp 95/00015

RECOMMENDED USES

Altra~Build® 535 is a high performance, multi-purpose, surface tolerant, two component; chemically cured epoxy semi-Gloss: coating.

Altra~Build® 535 is specifically formulated for use as a new construction or maintenance coating for steel or masonry surfaces in the following areas:

- Pulp and Paper Mills
- Power Generation
- Railway Rolling Stock
- Fertiliser and Chemical Industries
- Pipelines
- Tankage
- Dairy and Food Industries.
- Shipyards and Dockyards.
- Sewage Treatment Plants
- Coal industry
- Off-Shore Installations.
- Potable Water Tanks

Limitations of Use:

- Exterior exposure will cause early loss of sheen and chalking. This will not affect the protective properties of the coating.

Note: When used in potable water tanks use X-100 Thinner

SPECIFICATION DATA

Coating Type:	Advanced Technology Epoxy
Colour:	Off White Y35, Light Grey N35, Pipeline Grey N43
Packaging:	1 litre (Off White) 5 litre and 20 litre
Mix Ratio:	4:1 by volume
Gloss:	Low sheen
Flash Point:	38 °C Setaflash
Thinner:	½ Thinner
Pot Life:	5 hours at 25 °C
Induction Time:	15 minutes
Storage:	Store under cool dry conditions

Density:	1.35 kg per litre
VOC:	292 g per litre
Temperature Resistance:	121 °C
Volume solids (mixed):	68 %

Theoretical Coverage Rate:

4.53 sq. metres per litre at 150 microns dry

Recommended Film Thickness Per Coat:

147-294 microns wet to obtain 100-200 microns dry

Application: Spray, Brush or Roller

Dry Times (150µm DFT / 50% RH):

Touch dry: 3 hours

Recoat – minimum:	**5°C**	**15°C**	**25°C**	**30°C**
Epoxy	12 hrs	6 hrs	4 hrs	3 hrs
Urethane	24 hrs	8 hrs	5 hrs	4 hrs
Antifoul	12 hrs	8 hrs	4 hrs	4 hrs
Recoat – maximum:	**5°C**	**15°C**	**25°C**	**30°C**
Epoxy	720 hrs	720 hrs	720 hrs	720 hrs
Urethane	96 hrs	96 hrs	96 hrs	72 hrs
Antifoul	24 hrs	24 hrs	16 hrs	12 hrs

Note: Ventilation, film thickness, humidity and other factors can influence the rate of dry

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Oil or grease should be removed in accordance with AS1627.1 solvent cleaning. Surface defects revealed by the preparation process, should be ground, filled, or treated in the appropriate manner. Clean to remove all grit dust and debris and ensure the surface is dry.

Steel Surfaces:
Abrasive blast to AS1627.4 Class 3 for immersion service and for non-immersion to AS1627.4 Class 2 ½ to achieve a uniform blast profile between 38 to 63 microns and be of a jagged nature as opposed to a peen pattern. A lesser degree of cleaning will reduce the service life of the coating. Apply primer coat to the cleaned surface to prevent re-rusting or contamination.

Galvanised Steel and Electrodepositing Zinc Surfaces:
All traces of dichromate passivation must be removed. Sweep abrasive blast with non metallic media or thoroughly sand with synthetic scouring pad to provide a uniform roughened finish.

GRP and Wooden Surfaces:
Thoroughly sand with non-stearate paper with 80-120 grit paper.

Concrete surfaces:
Concrete must cure for at least 28 days and not be greater than 10 pH. Acid etch with dilute hydrochloric acid solution (1 part concentrated acid to 10 parts water) to produce a uniformly roughened surface profile, followed by washing off with copious amounts of clean fresh water until the cleaning water is neutral to litmus paper. DO NOT allow etch solution to dry on the surface. Check for excessive moisture using the ASTM D-4263 “Plastic Sheet Method” test. Grinding or sweep blasted to remove all laitence may also be carried out.

Previously Painted Surfaces:
Clean with Devoe Devprep® 88. Remove all unsound coatings. Prepare all corroded and damaged paint areas in accordance with the preparation required for the applicable primer. Feather back edges to a sound clean existing coating. Matt all existing coating to provide a fine matt finish. Clean to remove all grit dust and debris and ensure the surface is dry.
Apply a test patch to confirm compatibility with existing coating system. If lifting occurs remove to bare substrate.

DIRECTIONS FOR USE

Mixing:
Altra~Build® 535 is a two component product supplied in 1 litre (Off White), 5 litre and 20 litre kits that contain the correct ratio of ingredients.
Power mix the base portion first to obtain a smooth homogeneous condition. After mixing the base portion, slowly add the converter whilst continuing to agitate at slow speed. After addition of the converter is complete, continue to mix slowly until homogeneous.

Higher temperatures will reduce the working life of the coating; lower temperatures will increase it.

Thinning:
Thinning maybe required to assist application. Any solvent addition should be made after the two components are thoroughly mixed. Excessive thinning can cause low film thickness and coating defects.

Clean-up:
Use ½ thinner

Curing:
For maximum chemical resistance, internals of vessels must be cured for a minimum of 7 days at 25°C; with continuous forced ventilation during application and curing of the coating before putting into service.
At lower temperatures, longer cure times are required.

Application:
Application by either conventional air spray or airless spray equipment is the preferred method. For touch-up and repair to small areas, Altra~Build® 535 can be applied by brush and roller.

Suggested spray equipment is:

Air Spray:	Binks - type 2001 gun, 66SS Fluid Nozzle, 63P8 Air Nozzle
	DeVilbiss - JGA Gun, D Fluid Nozzle 64 Air Nozzle
Airless Spray:	Binks - 88-36 pump, Airless 1 0.021-0.027" tip
	Graco - 45:1 pump, Contractor Gun, 0.021-0.027" RAC IV tip

Note: Other equipment equivalent to the above may be used.

Safety within enclosed areas:
It is very important for the safety of the applicator and to ensure correct performance of the coatings, good ventilation is provided to all portions of the enclosed area.
It is equally important to bring into the enclosed area, dry fresh air to remove all solvent vapours. As solvent vapours are heavier than air, ventilation ducts should reach to the lowest portions of the enclosed area as well as into any structural pockets.
Ventilation should be maintained throughout the cure period.

PRECAUTIONS

For industrial use only.
See the Altex Coatings Limited General Safety Data Sheet, product label and Material Safety Data Sheet (MSDS) for health and safety information prior to use.

Altra~Build® 535 is flammable. Keep away from heat, sparks and open flame. Use with adequate ventilation.
May cause eye and skin irritation. Do not breathe vapour or spray. Wear suitable protective clothing such as gloves and eye and face protection.

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