

# APPLICATION GUIDE

## Altra~Build 520

### Design

Altra~Build 520 Sandable Epoxy Coating has been formulated to provide full protection and barrier qualities expected of epoxy coatings in marine applications.

In addition Altra~Build 520 Sandable Epoxy Coating has a combination of excellent sanding qualities and extremely fast cure - a combination desirable in quality architectural or boat production and painting.

### Recoat

Because of the fast curing characteristics it is very important to observe maximum and minimum recoat times for Altra~Build 520 Sandable Epoxy Coating both with itself and with subsequent polyurethane finishes such as Devthane 379 or E~Line 949.

A guide to recoat times (25°C:50% RH: 75 $\mu$ ) of Altra~Build 520 Sandable Epoxy Coating and the required level of preparation for recoating is outlined in the table below.

Intercoat Preparation	Time to Self Recoat or with Epoxy		Time to Topcoat with Polyurethane	
	Minimum	Maximum	Minimum	Maximum
None	4 hours	5 days	6 hours	24 hours
100/220 grit	6 hours to sand	2 weeks	6 hours to sand	48 hours
40/60 grit sand	6 hours to sand	Indefinite	NR - reapply 520	NR - Reapply 520

**Note:** Sanding grit grades data above - i.e. "100/220" - refers to "Power orbital sand / Hand sand" respectively  
A step by step procedure table illustrating the preparation and recoat times appears on the reverse of this page.

### Application Guidelines

Altra~Build 520 Sandable Epoxy Coating may be applied with appropriate conventional air-spray, airless spray, air-assisted airless spray or HVLP equipment.

Typical tested spray equipment set-ups are:

Air Spray: *DeVilbiss* - JGA Gun, E Fluid Nozzle, 78 Air Nozzle

Airless Spray: *Graco* - 30:1 pump, Contractor Gun, 0.019-0.023" RAC IV tip

**Thinning** requirements will vary with equipment set-up and other factors such as material and surface temperatures however at all times, where possible, thinner addition should be kept to the minimum practical level that allows for efficient material atomisation and transfer.

For guide purposes thinner addition, using Altex Thinner 1/2, may be between 0% to 10% for airless spray and industrial capacity conventional spray; between 5% to 20% for conventional spray finishing guns; and between 15% to 25% for lighter suction cup conventional spray guns.

Always apply Altra~Build 520 Sandable Epoxy Coating using a 50% overlap technique and at deposition rates to achieve between 50 $\mu$  and 100 $\mu$  dry film thickness.

With increasing thinner levels (> 20%) it will be difficult and inadvisable to attempt to apply material in excess 200 $\mu$  wet film thickness (approximately 50 $\mu$  to 60 $\mu$  dry film thickness), however 'wet out' and flow will be slightly enhanced. A table indicating the relationship between thinning levels and the relevant wet film / dry film thicknesses follows the "Inter-Coat Preparation Requirements" table overleaf.

### Coats per day

With thinner levels kept to a minimum (below 10%), and with individual passes applied at a rate equal to no more than 50 $\mu$  dry film thickness, up to four coats may be applied in a day by allowing at least one hour between each pass. However if higher levels of thinner are used and/or heavy films are applied, only one application per day is advisable.

# Altra~Build 520 Sandable Epoxy Coating Inter-Coat Preparation Requirements

Recoating 520 with itself or with another epoxy	Elapsed time at 25°C	Required preparation of aged 520 before proceeding
➤	1 to 5 days	Clean and dry Sanding optional
➤	After 5 days and up to 2 weeks	Clean and dry, sand with 100 / 220 (power/hand) grit wet or dry non-lubricated paper, tack rag clean
➤	After 2 weeks	Clean and dry, sand with 40 / 60 (power/hand) grit wet or dry non-lubricated paper, tack rag clean
<b>Recoating 520 with polyurethane finish</b>		
➤	Up to 24 hours	Clean and dry Sanding optional
➤	After 24 hours and up to 48 hours	Clean and dry, sand with 100 / 220 (power/hand) grit wet or dry non-lubricated paper, tack rag clean
➤	After 48 hours	Steps: 1. Clean and dry, sand with 40 / 60 (power/hand) grit wet or dry non-lubricated paper, tack rag clean. 2. Recoat with 520 at 50+ microns, tack rag clean if sanding the new coat of 520

**Table Showing The Relationship Between Thinning of Altra~Build 520 and Resultant Wet / Dry Film Thicknesses.**

5 lt pack Altra~Build 520		Thinner Addition % v/v - Actual Thinner Volume In mls per 5 Litre Pack of 520 and Wet Film Thicknesses (shaded area) to Achieve The Relevant Dry Film Thickness											
		%	0	5	10	15	20	25	30	35	40	45	50
Thinner addition rate													
Thinner addition volume		ml	0	250	500	750	1000	1250	1500	1750	2000	2250	2500
Required Dry Film Thicknesses	50µ	->	104	109	115	120	125	130	136	140	146	151	156
	75µ	->	156	164	172	180	188	195	203	211	218	227	234
	100µ	->	208	219	229	240	250	260	271	281	292	302	313
Mix Volume Solids with Thinner			48	45.7	43.6	41.7	40	38.4	36.9	35.6	34.3	33.1	32

**Note:** Reverse type area denotes wet film thicknesses that are impractical and not recommended