

Carlisle Coatings & Waterproofing Incorporated (CCW) has prepared this application guide to assist applicators in the use of ECO-FAST products for Carlisle ECO-FAST Systems. Any reference to consumptions are approximate since consumptions will vary according to existing installation conditions and application techniques. Before commencing any work, the applicator must become familiar with all product installation procedures.

## ADVANTAGES

solvent free

Non-flammable

Ŭ.

- Virtually odor free
- VOC compliant

## SYSTEM DESCRIPTIONS

**Light -** For pedestrian walkways, balconies, mechanical rooms, food processing areas, ramps, and entrance areas. For vehicular use on light duty parking decks and stalls on medium duty decks.

**Standard -** For heavy duty pedestrian areas and parking decks with normal vehicular traffic. **Heavy Duty -** For parking decks where abrasion resistance and extreme wear is a factor.

	Light Duty Mils So	q. Ft. / Gal.	Sta Mils	andard D Sq. Ft.	uty / Gal.	He Mils	avy Duty Sq. Ft.	/ / Gal.
600 Primer	5	350		5	350		5	350
601 Base	25	64		25	64		25	64
602	None			12	130		20	80
Aggregate				16-20 mesh To Refusal		16-20 mesh To Refusal		
602/603 Top Coat	15	110		16	100		16	100
Aggregate	10-12 lbs.	20-30 mesh						

# MINIMUM APPLICATION GUIDE

### **MIXING OF MATERIALS**

ECO-FAST products come pre-proportioned. Do not split kits. All color components must be premixed for color consistency. Pour the bottle component into the center of the pail component and mix thoroughly for approximately two (2) minutes. Then scrape down sides of the pail and continue mixing for one (1) additional minute. Materials should be mixed with a jiffy paddle at low speed (400-600 rpm). Take care not to introduce air into the product. After mixing, material should be consistent in color.

### POT LIFE

The pot life of ECO-FAST products is normally set at a temperature of 68° F. Pot life will vary with temperature and humidity changes.

Ö	ECO-FAST 600S	40-50 minutes
Ö	ECO-FAST 600	30 minutes
Ŭ.	ECO-FAST 601	25 minutes
Ö,	ECO-FAST 601T	25 minutes
Ŏ	ECO-FAST 602	30 minutes
Ü	ECO-FAST 603	3 hours

#### **POURING MATERIALS**

When pouring materials out of the pail, use only material which flows naturally. Do not scrape the sides or bottom of the pail.

#### **COVERAGE RATES**

Actual coverage rates are dependent upon a variety of factors relative to the field application. The installer must assess the conditions prior to ordering material. With 100% solids material one (1) wet mil will equal one (1) dry mil. Generally, one (1) gallon of 100% solids material will yield 1600 square feet at one (1) mil thickness. Allowances must be made for waste in mixing and pouring as well as field conditions such as a rough deck surface.

#### **CONCRETE SLAB RESTORATION**

Spalls, delaminations, potholes, scaling, popouts, and other defects in the concrete must be repaired and all projections must be leveled prior to the commencement of floor installation. Repairs should be made using non shrink grout or by priming and troweling in a mixture of ECO-FAST 602 with 20-30 mesh sand.

#### SURFACE PREPARATION

Prior to commencement of the coating application, the existing surface must be thoroughly cleaned, The surface must be clean, sound, dry, and free of oils and other bond inhibiting contaminants, Use of mechanical methods such as shot blasting, sandblasting or hydroblasting are recommended to produce a clean and lightly textured surface. When hydroblasting, allow 24 hours for substrate to dry completely. Profile textures will affect material consumptions. Prior to applying each layer of the coating system make sure the previous layer is clean and dry.

#### **DETAIL PREPARATIONS**

Before beginning work, review the primer and coating data sheets for proper mixing instructions. Improperly mixed coating will not cure or perform correctly.

#### SYSTEM TERMINATION

Horizontal terminations: Cut or rout a 1/4 in. wide by 1/4 in. deep slot in the slab at the designated termination line. Mask off the termination edge of the slot. Apply coatings leaving sufficient void <sup><</sup> in slot to key in the topcoat. Allow the topcoat to remain level with the substrate at the termination edge.



Vertical terminations: For reglets or voids greater than 1/16 in., fill with PT-304 or CCW-201 Polyurethane Sealant and allow to cure according to the manufacturer's recommendations. Care should be taken to keep the surface of the cured sealant free of primer. Mask off termination line 4 in. above deck or as specified. Apply the mixed ECO-FAST 600 primer to the substrate at a 4 to 6 wet mil thickness, covering the vertical area and extending 3 in. onto the slab. Broadcast to excess with 60-100 mesh sand and allow the primer to cure, typically 1 to 2 hours. Remove excess sand by brooming, vacuuming, or blowing with oil-free air.

Apply the ECO-FAST 601T detail coat over the cured primer on the vertical surface and 2 in. on the slab at a 30 wet mil thickness. If a void of less than 1/16 in. is present, work the coating into the void during application. Featheredge the detail coat on the slab. Remove all masking before the coating has cured. After the detail coat becomes tack-free, typically 3 to 4 hours and not longer than 48 hours, continue with the coating system.

**NON-MOVING JOINTS AND CRACKS (LESS THAN 1/16 IN.)** - Apply the mixed ECO-FAST 600 primer at a 4 to 6 wet mil thickness a minimum of 3 in. wide on both sides of the joint or crack. Broadcast to excess with 60-100 mesh sand and allow the primer to cure, typically 1 to 2 hours. Remove excess sand by brooming, vacuuming, or blowing with oil-free air. Apply the mixed ECO-FAST 601T detail coat at 30 wet mil thickness taking care to ensure both filling and overlapping the joint or crack 2 in. on each side. Tool to a featheredge. Continue with the coating system when detail coat becomes tack-free, typically 3 to 4 hours and not longer than 48 hours.

MOVING AND NON-MOVING JOINTS AND CRACKS (GREATER THAN 1/16 IN. and LESS THAN 1 IN.) - Cut or rout out joints and cracks to a minimum 1/4 in. wide by 1/2 in. deep. All

concrete decks poured over precast "T's", planks or slabs, shall have control joints placed directly over all corresponding joints or openings in the precast units. Install a backer rod to prevent three sided adhesion and fill with PT-304 or CCW-201 Polyurethane Sealant. When sealant has cured according to manufacturer's recommendations, apply the mixed ECO-FAST 600 primer at 4 to 6 wet mil thickness a minimum of 3 in. wide on both sides of the joint or crack, taking care to avoid applying primer to the cured sealant. Broadcast



to excess with 60-100 mesh sand and allow the primer to cure, typically 1 to 2 hours. Remove excess sand by brooming, vacuuming, or blowing with oil-free air. Apply mixed ECO-FAST 601T detail coat over the joint or crack at 30 wet mil thickness and featheredge. After the repair

becomes tack free, typically 3 to 4 hours and not longer than 48 hours, continue surfacing work.

JOINTS (GREATER THAN 1 IN.) - A prefabricated joint system should be considered for any large, moving joints. Joints up to 1 1/2 in. may also be sealed with high quality polyurethane elastomeric sealants such as PT-304 or CCW-201. Expansion/contraction joints greater than 1 in. must never be overcoated with the coating systems. To achieve their designed performance, both the joints and deck coating must act independently while forming a continuous barrier.

All joints greater than 1 in. wide receiving PT-304 or CCW-201 Polyurethane Sealant or a prefabricated-



type joint system, must have smooth, sound, waterproof joint nosings to develop proper adhesion and to maintain the continuous barrier system. Use ECO-FAST 600S epoxy mortar binder to prepare an epoxy mortar to facilitate quality joint nosings. New joint nosings should be a minimum of 1/2 in. wide by 1/2 in. deep and filled with the epoxy mortar. Support the inside face of the nosings with a sturdy form wrapped in polyethylene film. Apply a prime coat of the mixed ECO-FAST 600S to the properly prepared nosing substrate at 4 to 6 wet mil thickness. While the prime coat is still wet, apply the epoxy mortar, which is a blend of the mixed ECO-FAST 600S epoxy mortar binder and a 20-40 mesh sand. This mixture is made by slowly adding 4 parts by loose volume of sand to 1 part volume of mixed epoxy mortar binder. Mix with a low speed (400-600 rpm) drill and jiffy mixing paddle for 3 to 5 minutes until uniform in consistency. Apply the epoxy mortar into the nosings, properly consolidate, and smooth with a finishing trowel level to the existing substrate. Allow to cure for 12 hours and remove all form work. Install and cure the sealant or joint system according to manufacturer's recommendations. Provide deck system termination as described under system termination.

**FLOOR/WALL JOINTS: BEARING -** After proper surface preparation, place a 1/4 in. diameter backer rod at the junction of all vertical and horizontal surfaces. Using PT-304 or CCW-201 Polyurethane Sealant, install a cove joint. Maintain a minimum 1/4 in. sealant thickness measured at the center point of the joint. Allow sealant to cure according to manufacturer's recommendations. After masking all walls, curbs, columns and other vertical penetrations 4 in. above the slab or as specified, apply the mixed ECO-FAST 600 primer at 4 to 6 wet mils thickness on the vertical surface and 3 in. on the slab taking care not to coat the cured sealant. Broadcast to excess with

60-100 mesh sand and allow the primer to cure, typically 1 to 2 hours. Remove excess sand by brooming, vacuuming, or blowing with oil-free air. Apply the mixed ECO-FAST 601T detail coat at a 30 wet mil thickness in a band over the cured sealant and extending to the mask line on the vertical and 2 in. onto the slab from the sides of the joint. Featheredge the deck. After the detail coat becomes tack free, typically 3 to 4 hours and not longer than 48 hours, continue with the coating system.

FLOOR/WALL JOINTS: NON-CONNECTED Install the correct diameter backer rod in the joint at



a depth of 1/2 of the joint width (1/2 in. maximum) measured at the center of the joint. Fill with PT-304 or CCW-201 Polyurethane Sealant and allow to cure according to the manufacturer's recommendations. Mask all walls, columns, curbs and other vertical non-connected penetrations 4 in. above the deck or as specified. Bond a sheet of 60 mil thick, CCW Uncured Neoprene Flashing over the cured sealant using EP-95 Splicing Cement and extending to ¼ in. below the mask line and 2 in. minimum onto the deck. Apply the mixed ECO-FAST 600 primer at 4 to 6 wet

mil thickness to the area between the mask line and the neoprene sheet and 2 in. past the edge of the neoprene onto the deck, taking care to not coat the neoprene. Broadcast to excess the 60-100 mesh sand and allow the primer to cure, typically 1 to 2 hours. Remove excess sand by brooming, vacuuming, or blowing with oil-free air. Apply a 30 wet mil thickness of the mixed CCW-601T detail coat over the neoprene sheet and extend the coating to the mask line and 2 in. onto the deck. Smooth the detail coat to a featheredge on the slab. Remove all masking before the coating has cured. After the detail coat becomes



tack-free, typically 3 to 4 hours and not longer than 48 hours, continue with the coating system.

**PENETRATIONS** - After proper surface preparation, install a ½ in. by ½ in. cant of PT-304 or CCW-201 Polyurethane Sealant. Allow sealant to cure according to manufacturer's recommendations. Mask off termination line 4 in. above deck or as specified. Apply the mixed ECO-FAST 600 primer at 4 to 6 wet mils thickness on the vertical surface and 3 in. on the slab taking care not to coat the cured sealant. Broadcast to excess with 60-100 mesh sand and allow the primer to cure, typically 1 to 2 hours. Remove excess sand by brooming, vacuuming, or blowing with oil-free air. Apply the mixed ECO-FAST 601T detail coat at a 30 wet mil thickness in a band over the cured sealant and extending to the mask line on the vertical and 2 in. onto the slab from the sides of the joint. Smooth the detail coat to a featheredge on the deck. After the detail coat becomes tack free, twpically 3 to 4

detail coat becomes tack free, typically 3 to 4 hours and not longer than 48 hours, continue with the coating system.

### **PRIMER COATINGS**

To the properly prepared substrate, liberally< spread the mixed ECO-FAST 600 or ECO-FAST 600S primer at 300 to 400 square feet per gallon to achieve a wet film thickness of 4 to

6 mils using high quality rollers or flat squeegees. Allow the material to saturate into the slab and force the material into the pores and any hairline cracks while removing the excess to an unprimed area. Into the still wet primer, 60-100 mesh sand at a rate of 5 lbs. per 100 sq. ft. Allow the primer to cure 1 to 2 hours for ECO-FAST 600 and 5 to 7 hours for ECO-FAST 600S at 68°F. Remove any excess sand by brooming, vacuuming, or blowing with oil-free air.



#### **MEMBRANE COAT**

After the primer and any detail applications have cured to tack-free, but no longer than 24 hours, apply the mixed ECO-FAST 601 membrane coating evenly at the required thickness using a high quality roller, notched trowel or squeegee.



Do not overwork the material. This can cause excessive entrapped air. Rough surfaces will require extra coating in order to get the proper final thickness.

Backroll with a medium nap roller for uniformity, followed with a spiked urethane roller to remove air in the membrane within 10 minutes of its placement.

### NEVER ADD SAND TO THE MEMBRANE COAT OF THE SYSTEM.

### INTERMEDIATE COAT (If required) FOR STANDARD and HEAVY DUTY

After the primer or membrane has cured, but no longer than 24 hours, apply mixed ECO-FAST 602 coating using a high quality roller, notched trowel or squeegee evenly at the specified thickness. Do not overwork the material. This can cause excessive entrapped air.



Once the binder has leveled, broadcast with 20-40 mesh sand to excess (approximately 50 lbs. per 100 square feet) and allow the binder to cure. Remove all excess sand by brooming, vacuuming, or blowing with oil-free air. This process may be repeated for heavy duty areas.

#### **TOP COATINGS**

There are two different types of Carlisle 100% solids top coatings. ECO-FAST 602 is used for interior applications and ECO-FAST 603 is used for exterior applications. Although ECO-FAST 603 is a two-component coating, bubbling and blistering can occur if it is applied too thick. Care should be taken to observe the specified



PEDESTRIAN TRAFFIC DECK COATING

application rate and to avoid puddles and other thick areas. On those projects where a solventbased topcoat is acceptable, CCW-503 may be used. To apply ECO-FAST 602 or ECO-FAST 603 as a topcoat, the membrane or intermediate coats must be cured, but no longer than 48 hours. Apply the properly mixed coating evenly using a high quality brush, roller or squeegee at the specified thickness. Broadcast the specified sand (if required) into the wet surface and then backroll with a high quality roller slightly wetted with the top coating.



#### LIMITATIONS

- Do not apply over damp or wet substrates. Do not apply to surfaces during the out-gassing of vapor.
- Do not apply during inclement weather or when it is anticipated.
- Minimum application and curing temperature 40° F. Maximum substrate temperature 120° F.
- Minimum cure time of concrete is 28 days. Maximum moisture content of the slab is 4%.
- Substrate temperature must be a minimum of 40° F above the dew point.
- The systems are not intended for tire chain or metal studded tire traffic.
- ECO-FAST 602 will discolor when exposed to UV.

The proper design, use, and placement of isolation, control, and construction joints must provide for the anticipated movement of the slab. Do not use on sandwich or split slabs with a buried membrane, on slabs over unvented metal pan, or on epoxy resin bonded patches or overlays.

#### **HEALTH & SAFETY INFORMATION**

Consult the product Material Safety Data Sheet (MSDS) and product labeling for compete information.

#### MAINTENANCE

Carlisle Deck Coatings can be cleaned with commercial detergents. Any damage should be repaired promptly. It is desirable to establish an agreement between the owner and applicator to provide periodic inspection and repairs to enhance longevity of the system.

#### LIMITED WARRANTY

CARLISLE COATINGS & WATERPROOFING INCORPORATED (CARLISLE) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any CARLISLE materials prove to contain manufacturing defects that substantially effect their performance, CARLISLE will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by CARLISLE with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. CARLISLE specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of CARLISLE's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the CARLISLE material in question.



Carlisle Coatings & Waterproofing Incorporated 900 Hensley Lane Wylie, Texas 75098 Toll Free: (800) 527-7092 Website: www.carlisle-ccw.com