



MonoSET 100 TC

Description:

MonoSET100 TC is a three-part urethane cement roller applied flooring system. A heavy duty pigmented coating typically applied 8 to 16 mils thick depending on the design requirements. It is designed to be used as a primer, mid-coat, topcoat or seal coat for a pigmented broadcast system. It can also be used for patching and coving when mixed with a suitable aggregate.

Suggested Tools:

1. 5 Gallon Metal Mix Container
2. 12" Paint Stick or spatula
3. 3.5 - 5" Jiffler Blade
4. High Speed Drill 1000-1500 rpms
5. 3/8" Nap Roller (9" and 18")
6. 12" Window Flat Squeegee
7. 1/16" (or less) Notch Squeegee
8. 3" Brush
9. Duct Tape
10. Spiked Shoes
11. Timer
12. Personal Protection Equipment:
 - i. Long Sleeved Shirt
 - ii. Long Pants
 - iii. Work Boots
 - iv. Safety Hat (if needed)
 - v. Latex Gloves or similar
 - vi. Dust Mask (3M N95)
 - vii. Safety Goggles

Surface Preparation:

The substrate must be sound, solid, profiled and free of materials or contaminants that may act as bond breakers. CSP 2-3 is recommended.

If substrate is contaminated, detergent scrub and rinse with clean water to remove surface dirt, oil, grease and any other contaminants.

For more information see: Surface Preparation Guidelines for MonoSET.

General:

Planning: Proper planning is essential to ensure a seamless appearance of the finished floor. Joint lines will show in the finished floor. Lay out installation in sections. Allow full width of area to be completed in 15 minutes or less to assure no placement lines.

Edge Details: When applying Monoset100 TC as a stand-alone system, keyways are not required. However, keyway all free edges, doorways, wall perimeters, expansion joints, columns, drains, equipment pads, and terminations to other MonoSET floor systems. Keyways are recommended to control shrinkage and transition to other floor systems if a high build system is placed on top of Monoset100 TC. A keyway about 1/4" wide by 1/2" deep is ideal.-(2:1 ratio keyway).



Crack Repair and Patching: On moving cracks, use a flexible joint caulk for cracks up to ¼” X ¼” without further bulking.

Patching: Larger cracks or deeper holes - prime with MonoSET 100 TC. While the primer is still wet or slightly tacky, patch the holes with MonoSET 100 HD.

The MonoSET100 HD should contain additional sand or pea gravel if the hole is deep. Allow patched area to harden before installing the floor area with MonoSET 100 TC.

Mixing Instruction: Make sure the installation area is 50-90°F. The material temperature should be at room temperature (72F). **Important: A stop watch is required during mixing.**

Select a convenient mix area. Protect the surface by covering the selected mix area with a layer of cardboard and/or a sheet of plastic. Make sure there is enough space to move around. The more comfortably your mixer works, the less likely you are to have a “mix error”.

Do not mix this product in direct sunlight or when temperatures exceed 90°F. Higher temperatures will greatly reduce the working time of this product. Make sure all necessary tools, mix and measure containers are ready. **DO NOT MIX UNTIL READY FOR IMMEDIATE USE.**

Monoset100 TC comes in a pre-measured units consisting: A component (resin), B component (hardener), and C component (Aggregate) – all 3 components must be added and thoroughly mixed.

A five gallon metal pail is needed (larger mix bucket maybe required if bulking the Monoset100 TC with additional aggregate/fillers). Shake part A thoroughly before opening. Pour part A into the pail; make sure the entire content of the part A is completely drained. Mix part A, resin before adding the Part B, hardener. Add part B. Be sure to get all the material, including any material clinging to the wall of the packaging, into the mixing vessel. Using a high speed drill equipped with a 3.5”/ 5” Jiffler mixing paddle, thoroughly mix A and B components for **30 seconds** (a dispersion blade is **not recommended**).

Gradually add aggregate and mix for **2 minutes** until a homogenous mix is attained (be sure to scrape the sides). Move the blade around to assure the mixture is completely mixed and uniform –**THOROUGH BLENDING IS MANDATORY**. Make sure there are no clumps in the mixed materials.

Important: If clumps cannot be mixed in or difficult to mix – STOP, examine the bag of aggregate for visible clumps or the presence of moisture.

CAUTION! Mix only what can be applied in 10 - 15 minutes. Do not attempt to re-work the materials after it begins to set. Watch your temperature for ideal working time. Incomplete mixing will cause an inconsistent finish or possible blistering. Replace mix bucket every 10 batches or have multiple mixing buckets ready. Multiple batches are recommended to reduce mix time and keep a wet edge. Clean mixing paddle and pail regularly to avoid mixing fresh material with older materials. This will further reduce irregular curing and/or blisters.



Application:

Immediately pour the entire content onto the substrate in a long ribbon without delay. Squeegee to evenly spread the materials on the substrate using a suitable v-notched squeegee depending on the desired thickness and then back roll with a 3/8" nap roller (go to applications section – see below). Wear spike shoes to walk over wet product to back roll.

Applications:

Monoset100 TC as stand-alone or used as primer for Monoset Series:

1. Mix material as instructed above under “Mixing Instruction”.
2. Pour the mixed material onto the floor in a 4” ribbon.
3. Scrape out all mixed material using a paint stick and do not leave any residue in the mix bucket.
4. Use a suitable v-notched or window squeegee to spread the material on the substrate to the desired thickness. Spread the material uniformly east to west.
5. Use a 3/8” non-shed roller to back roll the material. Wet out rollers in a puddle area prior to using them. Back roll the material north to south.
6. Final cross roll east to west to eliminate roller lines. Be sure to overlap 4” between each roll.
7. Leave “as is” or proceed to next system as specified.

Important – always pour next batches 2” in into the wet edges. This will avoid dry edges that can lead to severe roller line or cold line.

Monoset 100 TC as seal coat for Monoset100 SLT/SL/HD:

1. Mix material as instructed above under “Mixing Instruction”.
2. Pour the entire mixed material onto the Monoset100 SLT/SL/HD In a 4” ribbon.
3. Scrape out all mixed material with paint stick and do not leave any residue in the mixing vessel.
4. Use suitable v-notch or window squeegee to spread the material on the substrate to the desired thickness. Spread the material uniformly east to west.
5. Using a 3/8” non-shed roller. Wet out rollers in puddle area prior to using. Back roll the material north to south.
6. Finally cross roll east to west to eliminate roller lines. Be sure to overlap 4” between each roll.

Textured Surfaces:

For maximum slip resistance in wet areas, broadcast a #46 or #24 Aluminum Oxide into the wet resin. An aluminum oxide or quartz/sand may be broadcast into the wet resin for enhanced slip or skid resistance. Broadcast at 1/10 lb per square foot (psf). Excessive rollback over broadcasted aggregate may lead in reduction of slip resistance.



Typical Spread Rate: thickness dependent

	Spread Rate	System Thickness
Smooth trowel Primer/Topcoat System	125 sq. ft. per unit	16 Mils
V-notch trowel	125 sq. ft. per unit	1/16” quartz broadcast and topcoat

Special Instructions:

- Brush apply along edges and around drains and equipment.
- Check squeegee every 1000 sq. ft. for wear. Have new squeegee ready to avoid interruption in the process.
- The final cross roll must be completed immediately to ensure good uniformity of the material and to eliminate any residual roller marks in the finished surface (within 10 minutes of mixing at 70°F).
- Do not roll back into an area once you have left it. Too much rolling may leave the surface uneven. Too little or not enough rolling will also leave the surface uneven.
- Clean the squeegee blade with solvent if curing material builds up on it. Ensure the squeegee is completely dry before using on freshly mixed material.
- Use new squeegee blade when the tips get worn or turn over and use other side. Check the layer thickness of your freshly applied product thickness frequently to assure you are getting the desired layer thickness.

NOTE: Keep moisture from coming into contact during installation and curing. Water may alter surface appearance.

Avoid installing where puddling/pooling water or drips are nearby, especially during curing. All plumbing/misc. leaks must be stopped or diverted prior to commencing work.

Allow to fully cure. Allow a minimum of eight hours cure time before exposing the coating to light foot traffic at +75 °F. A minimum of 24 hours cure time is required at +50°F. Additional cure time is required before exposing the coating to heavy loads.

Textured Surface: an aluminum oxide or quartz/sand may be broadcast into the wet resin for enhanced slip or skid resistance. Broadcast 10th of a pound per square foot then roll back slightly after broadcast to encapsulate aggregate. Excessive roll back over broadcasted aggregate may lead in reduction of slip resistance.



Important: Clean tools frequently with solvent to prevent material build up and replace roller cover as needed. Make sure the tools are dry before using. Check for thickness frequently.

Allow the material installed to fully cure. A minimum of eight hours is needed for light foot traffic at 75°F. 24 hours maybe required at 50°F. Additional cure time is needed for heavy load traffic such as fork lift and heavy machinery.

Chemical Resistant:

Refer to chemical chart

Color:

See Color Chart

Packaging:

Sold in kits as follow:

A component – 5.5 lb. resin

B component – 5.5 lb. hardener

C component – 5.5lb aggregate

Storage:

Must be stored dry between 50° F - 90° F. Do not allow resin and hardener to freeze.

Aggregate has a 6 months shelf life.

Resin and Hardener has a 1 year shelf life.

Must be in original sealed container.

Limitations:

Do not use broken, damaged or wet bag of aggregate.

Do not split, substrate, or add to the kits unless it is inert materials such as pea gravel or sands for extending purposes.

Bleaching and staining is possible in pigmented system due to certain chemicals (This will not affect the performance).

This product is not light stable. Sunlight and metal halide lighting will cause yellowing (will not affect the performance).

A batch-to-batch color variations may occur. Box same lot number together for color consistency.

Do not apply to un-reinforced sand cement screeds, asphalt or bitumen substrates, glazed tile or nonporous brick and tile, magnasite, copper, aluminum, polyesters or elastomeric membranes.

Old, damaged or clumps in bag of aggregate may affect flow, leveling and healing properties.



Caution: Do not remove any materials from premeasured unit

Safety Precautions:

Have proper personal protective equipment (PPE).

Read safety data sheet completely and thoroughly.

Follow and observed all manufacturer, local, state, and federal regulation and safety hazards warning, procedure, and guideline.

Use only as directed. **KEEP OUT OF REACH OF CHILDREN.**

Disposal:

Dispose all excess materials, packaging, and other waste in accordance with federal, state, and local regulations.

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