

	<b>Application Procedure for Ultracoat Flex Applied to SPLASHTRON Pipe Ends.</b>		<b>Document No:</b> MT-AP-107	<b>Revision</b> 3
	<b>Issue Date:</b> 9/24/2020	<b>Written/Revised By:</b> Jerome Hebert	<b>Approved By:</b> Logan Hebert	<b>Page 1 of 3</b>

### Ultracoat Flex

As of October 1, 2006 Mark Tool & Rubber Co, Inc. has developed a new product to seal the ends of our “SPLASHTRON” coating. We wanted a product that could withstand blasting that is done in the fabrication yards or in the field. Ultracoat Flex is a 100% Solid 2 Part Epoxy designed for metal protection. Ultracoat Flex Epoxy gives outstanding adhesion, water and chemical resistance combined with excellent corrosion protection. It is flexible allowing it not to chip and has excellent resistance against impact.



### APPLICATION PROCEDURE FOR “Ultracoat Flex” APPLIED TO ENDS OF “SPLASHTRON” RISERS

1. Ends of “SPLASHTRON” and FBE coated pipe are solvent wiped with solvent such as acetone, MEK or alcohol.
2. Chamfer SPLASHTRON ends to 45° using a small angle grinder with an 80-grit flap disc.
3. The FBE coated pipe or bare steel is blasted with MBX Bristle Blaster, Coal Slag (Black Beauty) or any other commercial blast sandblasted that can achieve a 2.5-4.0 mill blast profile.
4. Ends of “SPLASHTRON” and pipe are solvent wiped again to remove any loose particles.
5. 1-2 inches of FBE coated pipe is masked off and 2 inches of “SPLASHTRON” is also masked off.
6. Mix thoroughly before use. Mix 1-part component B with 1-part component A. Do not thin this product. **If pipe can not be rotated to avoid dripping you may need to add Thickening Agent. See below recommended mixing Instructions.** Clean brush or spatula promptly with a solvent.
7. Thirty to Forty Mills of “**Ultracoat Flex**” is applied using 3-inch-wide chip brush to the areas that are masked off.
8. Remove masking tape and pipe is rotated until coating is dried if possible.

Curing Schedule for Substrate Temperatures							
23°F		41°F		77°F		95°F	
Min	Max	Min	Max	Min	Max	Min	Max
10 hours	No Max	8 hours	No Max	4 hours	No Max	3 hours	No Max
Cure time is temperature, humidity and mil coverage dependent.							

### Helpful tips for application:

Apply multiple thinner coats, i.e. (three 10 mill coats). The overcoating interval are as stated in the above table. If possible, rotate the pipe or at least roll the pipe back-and-forth on a rack a few times during the curing intervals. This will help with the sagging/dripping. Only mix the proper amount of Ultracoat Flex needed for each coat as it will exotherm and cure in container in about 30 minutes.

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### Recommended Mixing Instructions:

1. Mix Ultracoat Flex A-side and B-side separately thoroughly before use.
2. Mix 1-part component B with 1-part component A. Do not thin this product. For best results, use a high shear mixing blade running at maximum speed.
3. Addition of Thickening Agent **1 ½ cups or .35 Liters of Thickening Agent to 1-gallon kit of Ultracoat Flex is recommended**, but more may be needed to avoid dripping.



Ultracoat Flex Thickening Agent i.e. (silicon dioxide). When mixed into Ultracoat Flex it functions as a resin thickener (flow control agent). During the cure cycle, Ultracoat Flex tends to run off of vertical surfaces and accumulate on horizontal surfaces.

These undesirable conditions can be eliminated with the addition of the proper amount of Thickening Agent. This thixotropic agent holds the liquid resin in place until the curing agent takes over and hardens it. Normally, Ultracoat Flex Thickening Agent is added at, volumetric proportions. 1 ½ cups of Thickening Agent to one-gallon kit of Ultracoat Flex amounts yield a more liquid consistency, whereas greater amounts yield thicker pastes.

The exact amount used is determined by the application. The addition of Ultracoat Flex Thickening Agent has no effect on such properties as pot life, cure time, etc. In order to get the maximum effect with the least amount of Ultracoat Flex Thickening Agent, the microscopic particles must be homogeneously dispersed throughout the resin. For best results, use a high shear mixing blade running at maximum speed.

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## “Ultracoat Flex” PHYSICAL PROPERTIES

### DESCRIPTION

**Ultracoat Flex is a two-part hybrid epoxy designed to protect most substrates from degradation due to chemical attack, harsh environments and heavy wear. Ultracoat Flex prevents wear-through in areas subject to constant abrasion, heavy impact and other harsh conditions. Ultracoat Flex is an excellent protective coating for surfaces exposed to very severe chemical attack and constant corrosive environments, such as salt water.**

**Ultracoat Flex** has proven to successfully maintain adhesion to most surfaces in conditions where other coatings have failed to perform. An element of flexibility, high adhesive strength and a strong chemical backbone makes this coating tougher and more durable than standard epoxies. It imparts a strong resistance to the delamination that often occurs due to freeze/thaw cycles, impact and equipment vibration and distortion.

**Ultracoat Flex** can be applied using rollers, brushes or trowels, according to application needs.

### INTENDED USAGE –

*the following performances can be modified to meet specific needs*

- Excellent protection against all concentrations of sulfuric acid and dilute hydrochloric and dilute nitric acid. Excellent protection against caustics such as lime, potash, potassium hydroxide, sodium hydroxide and **salts**.
- A coating for metal, concrete, wood and other porous surfaces to protect against the harshest chemical attack. **Ultracoat Flex** offers superior anti-corrosive protection and rust inhibition.
- Coating for surfaces that require superior adhesive strength for create a long-lasting, durable coating. **Ultracoat Flex** maintains excellent adhesion during tank deformation under heavy loads, repeated freeze/thaw cycles and abrasive environments.

Qualities	Performance
Compressive strength	greater than 20,000 psi
Flexibility	Greater than 30° bends at 100 mils with no affect on adhesion
Heat resistance	To 300°F – standard
Adhesion	cold roll steel/NACE 5 greater than 4000 psi
Cure time @ 70 ° F	100% cured in 24 hours – standard
Method of Application	Brush, roller and or spray
Percent solids	100% (VOCs - nil)
Coverage	Approx. 150 square feet/gal kit; coverage varies based on thickness of application and substrate.