Once again, Synpro and OEM partners have teamed up to eliminate a costly and dangerous process in the ready mix industry. By combining the properties of EMS’s patented SynGuard and our revolutionary anti-abrasion chemical, we have developed a simple process that easily coats the inside of steel or composite drums with a surface boasting 100 times the anti-stick properties of Teflon.

Fusion bonds with composite or steel to create a barrier that will not allow concrete to stick to interior walls and fins of the drum. The immediate results include less water needed for washouts, maximum discharge, no added weight due to hardened concrete on the interior surfaces, and no damage to the fins due to concrete becoming detached during normal operations. Long term, it means no more chipping concrete from the drum, an expensive and dangerous process. It also means longer drum life due to less wear.

Fusion adheres to the interior surfaces of the drum, hopper and chutes, will not break down with any mix design and will not fall into the mix solution. Independent lab results show that Fusion lasts up to 2000 yards of delivered concrete. Field results have hundreds of trucks still going strong after 1000 yards. It has been tested successfully with design mixes from 2,500 – 10,000 psi, including PRPM mixes. Fusion will not interfere with compaction test results and is 100% safe for all pours, including D.O.T. pours.

Customers will be able to order new mixers from certain OEM’s pre-treated at the factory with Fusion. When it’s time for a new application, producers simply apply on site. Fusion can be sprayed, mopped, or sponged on while inside the drum. No mixing, heating or special drying equipment is required.
Fusion Application Guide
Steel Drum and Composite Drum

This guide expands upon the label instructions on your Fusion container and MUST be adhered to. If you have any questions, please do not hesitate to call Synpro (877-669-0963).

Fusion is a Ready-to-use Product. No Dilution is Required.

Preparation
The surface must be properly prepared for a successful Fusion application. The surface must be clean, dry and without any coating or paint. Fusion cannot work through concrete, paint, oils, release agents or any foreign material that may be inside the drum. A clean, dry drum is required for a successful application.

Temperature
Prevent from freezing: Fusion containers must be stored above 32°F(0°C). Fusion should only be applied if the temperature of the drum is above 40°F(5°C). During cold months, trucks must be parked inside to allow the drum to heat up, receive the Fusion application and be allowed to dry.

New Mixers
For new or refurbished mixer drums: stone and water should be added to the drum, rotated in charge mode for approximately 10 minutes then discharged completely. This is done to prepare the surface by removing any slag or oils that were present after the drum manufacturing process.

Water
Fusion is a sophisticated formulation. ANY water inside the drum (wet walls and fins, condensation or water present in the belly of the drum) will result in product failure. Prior to the Fusion application, all water in the drum should be removed and the surfaces dried.

Drum Entry Application
Fusion can be applied with an airless sprayer (pump up sprayer typically used in lawn and garden applications). Do not atomize Fusion. A typical 10 cubic yard drum will require 2 to 2.5 gallons of Fusion to be treated correctly. The drum will look coated (wet) after just 1 gallon is applied, for proper performance; continue to apply until at least 2 gallons are used. Waiting between coats is not necessary. After exiting the drum, run at low RPM in charge mode for 15-20 revolutions, then in discharge for the same 15-20 revolutions. A small amount of Fusion might spill from the drum; raise the main and flip chute so the Fusion coats these chutes as well. Fusion can also be sprayed in the charge and discharge hoppers to prevent build-up in these areas.

No Entry Application
Following the exact same drum preparation instructions as above, with the temperature above 40°F(5°C), pour at least 35 gallons of Fusion into a clean, dry, mixer drum. With engine at 1200 RPM, rotate drum in charge mode at 10 RPM for approximately 10-15 minutes. After allotted time, bring truck engine to idle and slowly discharge Fusion into an open barrel or container. Approximately 98% of Fusion will be discharged, ready to be used in next application.

Dry Time
Fusion must be allowed to properly dry; overnight is preferable, but a minimum of 12 hours should be allowed. Any water entering the drum during this drying period will ruin the application. Remember, Fusion cannot be applied if the temperature of the drum is below 40°F(5°C). During cold months, trucks must be parked inside to allow the drum to heat up, receive the Fusion application and be allowed to dry.

Re-apply every 2,000 yards of delivered concrete or as needed.