

SILCOTE-CR

A CLEAR CHOICE IN CORROSION PROTECTION



SILCOTE-CR, an inorganic hybrid polymer, represents an exciting technology that can provide a clear high gloss and durable, corrosion protection surface unlike anything available on the market today. Since its introduction in the protective coatings industry, the polysiloxane hybrid coating has been used for the protection of millions of square meters of steel which includes large constructions, new building and maintenance projects, the nuclear and mining industry, refineries, on shore plants, tunnels and bridges and a variety of other projects.

SILCOTE-CR can be applied directly over prepared bare metal or over existing paint or other topcoat. Its protective properties stem from its extraordinary adhesion and extremely tight microstructure that resists the passage of vapor and gasses. It is an easy to work with two part coating that can be formulated to very low VOC levels depending on regional and application requirements.

SILCOTE-CR coatings are hard, tough with excellent abrasion, chemical, solvent and stain resistance. They provide outstanding UV and weather protection and can also be used in continuously submerged applications. **SILCOTE-CR** coatings retain their color and gloss far better than practically any other topcoat in the protective coating industry, including the best of breed epoxies and polyurethanes. **SILCOTE-CR** can also be formulated with anti-graffiti properties for use on outdoor structures that are subject to vandalism. It is also offered, by special order, in a limited palette of colors and metallic finishes.

HEALTH, SAFETY and ENVIRONMENT

Due to its high volume solids content of up to 90 percent in combination with its ease of application without the use of thinners, a significant reduction of solvent emissions and waste is achieved. The low VOC polysiloxane coating is fully compliant with the increasingly stringent environmental, health and safety requirements without down grading performance. The polysiloxane hybrid coatings represent a large improvement with respect to health, safety and environment compared with epoxy, epoxy acrylic and polyurethane coatings.

WEATHERING

The polymeric structure that contains repeating silicon-oxygen groups in the backbone of the polysiloxane hybrid coating provides the basis for its excellent weathering characteristics. As a consequence, the coating is nominally affected by sunlight, weathering or atmospheric oxidations in contrast with organic-base coatings that eventually degrade under these exposure conditions.

SILCOTE-CR with its unique chemistry and composition, ease of use and outstanding durability now offers a unique solution. Corrosion protection coatings can now provide the necessary efficacy while presenting a more finished and decorative appearance.

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PREPARATION, APPLICATION & CLEANUP

SURFACE PREPARATION: The preparation requirements are fairly modest. Make sure that the target surface is free of oil and greasy contaminants and is free of dirt and debris. There is no requirement for primers and bonding agents.

SILCOTE-CR PREPARATION: **SILCOTE-CR** is a 2-part coating supplied as Part-A and Part-B. Part-A is the resin and Part-B is the catalyst that enables the curing and hardening of the resin to develop the ultimate physical properties. The mixing ratio is 8:1 and should be strictly maintained in order to ensure optimal functionality. Eight parts of Part-A should be poured into a plastic or metal container just prior to application. Add one part of Part-B to the Part-A in the container and gently stir the mix till a clear slightly straw colored liquid is obtained. This ensures that the two parts have thoroughly homogenized. Each gallon of **SILCOTE-CR** will provide a single coat coverage over approximately 750 to 1000 square feet, at approximately 1.5 mil DFT (0.37 mm dry film thickness) depending on the nature of the substrate and method of application. The 'wet edge' or working time of **SILCOTE-CR** is approximately 2 hours making it very spray process friendly. It is important to mix only enough material that can be comfortably and properly coated during this time window.

APPLICATION: **SILCOTE-CR** can be applied by brush, roller or HVLP sprayer after preparing the surface as recommended above. All basic precautions associated with solvent based paints and painting should be followed including proper gear, ventilation, masking off areas that will not be coated and preventing air borne debris from invading the area being coated and while the coating is wet. **IMPORTANT: The area being coated should be well ventilated and there should be no exposure to open flames or sparks of any kind.**

DRYING TIME: **SILCOTE-CR** has a 2 to 3 hour working time which gives the applicator more than sufficient time to coat large areas, mix additional batches and rectify coating problems and defects along the way. Full cure requires approximately 8 hours. An overnight cure is highly recommended. At this time the coating will have hardened sufficiently to permit foot traffic and will have developed liquid and stain resistant properties. The chemical integration of the resin matrix will continue over the next 48 to 72 hours at which time **SILCOTE-CR** will achieve its optimal abrasion, chemical and weather resistant properties.

CLEANUP: Tools, equipment and containers used for the **SILCOTE-CR** application can be thoroughly wiped clean with a basic alcohol based solvent such as isopropyl alcohol (IPA commonly known as 'rubbing alcohol'). Tools and other equipment can additionally be washed with soap and water if necessary. Liquiguard's **EcoKleanz** cleaner/stripper provides an excellent choice for an effective bio-based cleaning solvent in case the coating needs to be removed and reapplied due to wear or other damage. Overruns and spills can also be remedied with **EcoKleanz**. **SILCOTE-CR** cleanup residue should be disposed off in a manner similar to disposing normal oil based paint residue and trash.