



**TEMPERKOTE® 1515**  
 (Formerly Flame Control 1515)  
**HIGH SOLIDS/LOW V.O.C. SERIES**  
**ULTRA HI-TEMPERATURE**  
**HIGH PERFORMANCE INDUSTRIAL HI-HEAT® COATING**  
 \*Maximum Service Temperature 1500°F (815°C)

**DESCRIPTION:**

TemperKote No. 1515 High Solids/Low V.O.C. Series Ultra Hi-Temperature coatings are based on pure silicone resins with special ceramic colorants and additives. These coatings cure by catalyzation, polymerization, and by subsequent fusion and complexing of the metallics and ceramics. May be used on steel, castings, and other metals capable of withstanding ultra high temperatures. No. 1515 is also suitable for use on stainless steel surfaces. It is formulated with special ingredients to minimize contamination from chlorides, other halides, sulfides, nitrates, and metals which are known to induce external stress corrosion cracking. They contain no free metallic zinc and, therefore, will not contribute to embrittlement of stainless steel welds.

**RECOMMENDED USES:**

Wherever the ultimate in heat resistance is desired. Can be used where temperatures are above the decomposition point of conventional silicone hi-temperature paints. The metal must be of a type that will withstand highly oxidative conditions developed at ultra high temperatures. Ordinary cold rolled steel may delaminate and fracture at high temperatures, decreasing the life expectancy of the surface. Can be used on crackers, furnaces, manifolds, turbines and jet engine components, etc. that will be subjected to service temperatures up to 1500°F (815°C). Not recommended for use on the inside of ovens, stacks, etc.

**PERFORMANCE INFORMATION:**

TemperKote No. 1515 Series Ultra Hi-Temperature Coatings cure by [1] polymerization [2] fusion of ceramics and [3] by metal complexing. The coating must be heat cured a minimum of one hour at 450°F (232°C) before being subjected to high service temperatures. During curing, the coating

polymerizes, forming a strong physical bond to the steel. When subjected to high temperatures, the fusion of the ceramics, coupled with the metal complexing, creates a chemical-physical bond to the substrate that allows the coating to withstand temperatures up to 1500°F (815°C).

**CHARACTERISTICS:**

- Finish** . . . . . (\*) Low Gloss
- Resin Type** . . . . . Pure silicone
- Type of Cure** . . . . . Solvent evaporation with polymerization, fusion and metal complexing
- Drying Time @ 77F (25C) & 50% R.H.**
  - To touch. . . . . 1 hour
  - To recoat . . . . . 1 ½ hours
  - Full cure. . . . . Heat cure required, Begin full cure within 24 hours, see below
- Curing Temperature & Time** . . . . .
  - Minimum curing temperature . . . . . 450°F (232°C)
  - Minimum curing time. . . . . 1 hour
- Application Temperature** . . . . . 50°F (10°C) to 150°F (66°C)
- Spreading Rate Per Coat** . . . . .
  - 525 - 800 sq. ft./gal. (13.1 - 19.6 m<sup>2</sup>/l)
  - 2-3 mils wet, 0.9 - 1.4 mils dry
- V.O.C. Less Than** . . 3.5 lbs.gal. (420 g/L)
- Solids by Weight** . . . . .Varies with Color
- Solids by Volume (typical)** . . . . . 45%
- Weight Per Gallon** . . . . .Varies with Color
- Flash Point of Liquid Coating** . . . . . 40°F (4.4°C) (closed cup)
- Reducer/Cleaner** . . . . . Reducer 555
- Shelf Life** . . . . . 2 years (unopened)
- Packaging** . . . . . 1, 5 & 55 gal. containers
- Shipping Weights** . . . . . 4 gals. - 50 lbs.  
 5 gals. - 60 lbs.  
 55 gals. - 685 lbs.
- Application** . . . . . Brush, roller, conventional and airless spray

(\*) Gloss diminishes at higher temperatures.

**Heat Resistance of Standard Colors No. 1515 Applied to Stainless Steel**

- No. 1 Black . . . . . Up to 1500°F (815°C)
- No. 2 Silver. . . . . Up to 1500°F (815°C)
- \*No. 4 Topaz . . . . . Up to 1500°F (815°C)
- \*No. 6 Newport . . . . . Up to 1500°F (815°C)
- No. 8 Walnut . . . . . Up to 1500°F (815°C)
- \*No.10 Russet . . . . . Up to 1500°F (815°C)
- \*No.12 Camouflage . . . . . Up to 1500°F (815°C)
- \*No. 14 Golden . . . . . Up to 1500°F (815°C)
- \*No. 15 Charcoal . . . . . Up to 1500°F (815°C)

\*Maximum dry service temperature with minimal color change.

**SURFACE PREPARTION:**

To ensure excellent adhesion, all surfaces **MUST** be blasted to SSPC-SP-5, 1.0-1.5 profile. All dust and contaminants **MUST** be thoroughly removed after blasting. After surface is prepared, coating should be applied immediately.

**APPLICATION:**

**Do not use primer.** Stir thoroughly. Do not incorporate air or excessive moisture during mixing! Can be applied by brush, roller or spray. Spray is the preferred method. The coating should be applied in two coats to give a total dry film thickness of 2-3 mils. Thinning is not recommended, however, if necessary for spray application, use a minimal amount of Reducer 555. **First coat**, apply a 2 to 3 mil wet film thickness, allow 1 ½ to 2 hours drying time before recoating. **Second coat**, repeat procedure. **Do not apply heavier films, as the coating may blister when heat is applied.**



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**CURING:**

TemperKote No. 1515 Coating must be heat cured (within 24 hours) to obtain maximum properties. Allow adequate drying time after the final coat [1 to 2 hours at ambient temperature 77°F (25°C)], then gradually increase temperature to 450°F (232°C), hold at 450-500°F (232-260°C) for one hour before gradually raising to higher service temperatures.

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After curing, for best performance, it is essential that the temperature be taken up slowly, over a period of hours, to the normal operating temperature

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**APPLICATION EQUIPMENT:**

**Airless Spray**

**Titan 740 Impact** (or Equivalent)

- Pump
- Fluid Pressure. . . . . 2700-3100 psi
- Manifold Filter . . . . . 60 Mesh
- Gun Filter . . . . . 60 Mesh
- Fluid Hose . . . . . ¼" diameter
- Gun . . . . . LX-80 II
- Tip . . . . . .015 - .021

**PRECAUTIONS:**

**DANGER! FLAMMABLE LIQUID & VAPOR: CONTAINS TOLUENE & VOC EXEMPT SOLVENTS.**

VAPOR HARMFUL. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE, SKIN, NOSE AND THROAT IRRITATION. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Do not smoke. Extinguish ALL flames and pilot lights, and turn off stoves, heaters, electric motors and OTHER sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation.

USE ONLY WITH ADEQUATE VENTILATION. Do not breathe vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use. Close container after each use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

**FIRST AID:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention immediately.

If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent container and unused contents in accordance with local, state and federal regulations.

**FOR INDUSTRIAL USE ONLY**

**Read MSDS before opening containers.**

**KEEP OUT OF THE REACH OF CHILDREN**

As we cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used, we accept no responsibility for results obtained by the application of this information or the safety or suitability of our products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product or product combination for their own purposes. We sell the products without warranty or guarantee, and buyers and users assume all responsibility and liability for loss or damage from the handling and use of our products, whether used alone or in combination with other products.