



## Flame Control TemperKote® 600HS

### HOT SURFACE TOLERANT

INDUSTRIAL HI-HEAT® RESISTANT COATING

Air Dries, No Heat Cure Required

\* Maximum Service Temperature 600°F (315°C)

\* Maximum Surface Temperature for Application 300°F (156°C)

### Product Description:

Flame Control TemperKote 600HS Industrial Hi-Heat Coatings are based on a thermally stable silicone modified acrylic resin. The coating is specially formulated for application to Hot Surfaces. TemperKote 600HS can be applied to metal exhibiting temperatures in the range of 120°F - 300°F (49°C - 156°C). This unique feature allows for the coating of hot equipment without complete shutdown, resulting in a fast turnaround time to resume normal operating temperatures. The coating **air dries** to a tough, hard, weather and heat resistant finish. Special pigments are utilized to achieve maximum heat resistant properties. The curing mechanism is a unique combination of solvent evaporation and resin cross-linking. They do not require any complex heat curing schedule to obtain their heat and weather resistant properties.

### Characteristics:

<b>Colors</b>	Black, Silver, White, Off White, Dark Gray, Medium Gray, Light Gray, Blue, Beige, Light Beige, Dark Green, Light Green, Safety Blue, Safety Green, Safety Yellow, Safety Orange, Safety Red		
<b>Finish</b>	Flat	<b>Resin Type</b>	Silicone Acrylic
<b>Thermal Stability</b>	600°F (315°C)	<b>VOC</b>	Less Than 3.5 lbs. /gal (420 g/L)
<b>Color Stability (*)</b>	500°F (260°C)	<b>Flash Point</b>	40°F (4.4°C) (PMCC)
<b>Type of Cure</b>	Solvent Evaporation/Resin cross-linking	<b>Reducer/Cleaner</b>	TemperKote Reducer HS
<b>Application Temperature</b>	120°F (49°C) to 300°F (156°C)	<b>Packaging</b>	1, 5 & 55 gal. containers
<b>Solids By Volume</b>	<b>Primer</b>	40% ± 2%	<b>Shelf Life</b>
	<b>Silver</b>	27% ± 2%	
	<b>All Other Colors</b>	31% ± 2%	
<b>Weight Per Gallon</b>	<b>Primer</b>	14.3 lbs. (6.5 kg)	<b>Solids By Weight</b>
	<b>Silver</b>	8.6 lbs. (3.9 kg)	
	<b>All Other Colors</b>	12.8 lbs. (5.8 kg)	
<b>Spreading Rate per Coat</b>	<b>Universal Primer</b>	214 – 320 sq. ft./gal (5.25 – 7.8 m <sup>2</sup> /L) 5.0 – 7.5 mils wet, 2.0 – 3.0 mils dry	
	<b>Silver</b>	172 – 286 sq. ft./gal (4.2 – 7.0 m <sup>2</sup> /L) 5.6 – 9.3 mils wet, 1.5 – 2.5 mils dry	
	<b>All Other Colors</b>	198 – 333 sq. ft./gal (4.9 – 8.1 m <sup>2</sup> /L) 4.8 – 8.1 mils wet, 1.5 – 2.5 mils dry	
<b>(*)Drying Time @ 120°F (49°C) &amp; 50% R.H.</b>		<b>To touch</b>	
<b>(*) Higher surface temperatures will speed dry times</b>		.75 hour – 1.25 hours	

### Recommended Uses:

Wherever the need for coating hot in-service equipment arises. Can be used on heaters, stacks, boilers, breeches, mufflers, radiators, storage tanks, pipelines, steam lines, etc., where operating temperature will not exceed 600°F (315°C). **Not recommended** for use on the **inside** of ovens, stacks, etc.

### Performance Information:

This very unique coating performs as well as many pure silicone resins, but has the distinct advantage of being curable at room or ambient temperature, and can be used over TemperKote 600HS Gray Primer, or applied directly to clean steel. It has the unique ability to be applied to metal displaying temperature ranges from 120°F - 300°F (156°C).

It has exceptional color stability to 500°F (260°C), Black and Silver to 600°F (315°C), excellent heat resistant properties, excellent weathering characteristics and good corrosion protection.

### Test Data:

Test Type	Reference	Specification Details	Typical Result
<b>Salt Fog</b>	<b>ASTM B117</b>	<b>168 hrs</b>	<b>ASTM D714 – 10 ASTM D1654 – 8 ASTM D610 – 8-P</b>
<b>Adhesion</b>	<b>ASTM D 3359</b>		<b>5B</b>
<b>Impact, Direct/Reverse, inch/lbs</b>	<b>ASTM D 2794</b>		<b>160/160</b>
<b>Flexibility, Mandrel</b>	<b>ASTM D522</b>		<b>1/8" Pass</b>
<b>Pencil Hardness</b>	<b>ASTM D3363</b>		<b>2H</b>



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#### Surface Preparation:

##### General:

For best results surfaces should be free from oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint and foreign matter. All surfaces should be solvent cleaned per SSPC-SP1 and meet SSPC-SP3 minimums with surface profile of 1.0 - 1.5 mils.

##### STEEL:

Remove all flux, splatter and slag left from welding. Grind all welds until smooth. Remove rust, mill scale, oil grease, and other contamination by solvent cleaning per SSPC-SP1.

**For Typical Industrial Environments** a low profile, near-white metal blast, SSPC-SP10, is preferred as it will give best results, especially where higher service temperatures are anticipated. Blast profile should be 1.0 - 1.5 mils. Remove all remaining abrasive from surface by air blasting. Coat the freshly blasted surface as soon as possible. Do not allow surface to become wet. Do not wash freshly blasted surface with solvents. For small difficult to reach areas, SSPC-SP11 power tool cleaning to bare metal is acceptable.

**For Severe Environments** blast surface to commercial blast profile per SSPC- SP6.

##### NEW GALVANIZED SURFACES:

Remove all oil, grease and flux by solvent cleaning per SSPC-SP1.

##### WEATHERED GALVANIZED SURFACES:

Remove all dirt, oil and grease by solvent cleaning per SSPC-SP1. Remove rust or foreign deposits by wire brushing per SSPC-SP2 or power tool cleaning per SSPC-SP3.

##### STAINLESS STEEL SURFACES:

Surface must be clean and dry. Remove all oil, grease, soil, drawing and cutting compounds and other foreign matter by solvent cleaning per SSPC-SP1.

DO NOT USE CHLORINATED SOLVENTS ON STAINLESS STEEL SURFACES.

For large areas steam clean with an alkaline detergent followed by a steam or fresh water wash to remove residue.

#### Application:

Mix thoroughly by boxing or stirring. Spray application is required. **Do not apply heavier film than specified, as the coating may blister when heat is applied.**

##### HOT STEEL:

**IMPORTANT!** It is critical to make multiple quick passes to achieve proper coverage rates. These thin passes will allow the solvent to evaporate at a controlled rate insuring no pinholes.

**WARNING:** Use only Reducer HS for thinning of any TemperKote HS series coatings. The use of any other solvent could create a fire hazard and would likely result in poor film characteristics and 'dry spray'.

Where maximum corrosion resistance is desired, apply one coat of Flame Control TemperKote Universal Primer at approximately 5.0 – 7.5 mils wet film thickness, (214 - 320 sq. ft. /gal.). After primer is dry, apply one coat of TemperKote 600HS Series Hi-Heat Coating at the specified coverage rate (refer to characteristics section).

Where maximum corrosion resistance is not required, one coat of the TemperKote 600HS Series Hi-Heat Coating can be applied directly to the metal at 1.5 – 2.5 mils dry film thickness per coat (198 - 333 sq. ft. /gal.-all colors and 172 - 286 sq.ft./gal.-silver).

**NOTE:** Application to hot surfaces increases the possibility of dry spray, maintain a reasonable distance from the surface being coated, avoid reaching and angles greater than 30 degrees.

#### Application Equipment:

##### AIRLESS SPRAY:

##### Titan 740 Impact (or Equivalent)

Fluid pressure . . . . . 2700 - 3100 psi

Manifold Filter . . . . . 60 Mesh

Gun Filter . . . . . 60 Mesh

Hose . . . . . ¼" diameter

Gun . . . . . LX-8011

Tip . . . . . .015 - .021

#### FOR INDUSTRIAL USE ONLY

**Read MSDS before opening containers**

**KEEP OUT OF THE REACH OF CHILDREN**

#### Precautions:

**DANGER! FLAMMABLE LIQUID & VAPOR: CONTAINS TOLUENE & PETROLEUM DISTILLATES. 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.

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