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**PRODUCT DATA SHEET**

**Turbo X**

**(TXBK Black or TXBL Blue)**

**SELECTION DATA**

**PRODUCT DESCRIPTION:**

*Turbo X* is a Silicone / ceramic coating designed to be applied primarily to exhaust systems components. When applied to exhaust systems *Turbo X* will handle exhaust Gas Temperatures up to 2000°F. Due to its unique ceramic nature, the coating also functions as a very effective thermal barrier, with reduced thermal radiation characteristics. *Turbo X* full cures at 600°F. for one hour at temperature. The coating cures to a very hard, durable surface with excellent adhesion. *Turbo X* is designed to be an air drying coating capable of being cured with exhaust heat. In most cases this is acceptable. However initial exhaust gas temperatures at start up are critical, as the extremely high temperatures that can be generated by both lean and rich conditions can damage the resin system before full cure is achieved, leading to a failure of the coating. Corrosion and chemical resistance is only achieved after the coating achieves a complete cure.

*Turbo X* Black is color stable to exhaust gas temperatures of 2000°F.

**RECOMMENDED USES:**

Designed for single coat coverage or can be applied over a base primer coating such as Prevcor. Primarily for use on exhaust systems components or other parts subject to high temperatures.

**NOT RECOMMENDED FOR:** N/E

**CHEMICAL RESISTANCE GUIDE:**

<u>Exposure</u>	<u>Splash &amp; Spillage</u>	<u>Fumes</u>
Acids	Poor	Poor
Alkaline	Poor	Poor
Solvent	Good	Good
Fluids	Good	Good
Fuels	Good	Good
Salt	Good	Good
Water	Good	Good

**FLEXIBILITY:** Good      **WEATHERING:** Good

**ABRASION RESISTANCE:** N/E

**SUBSTRATES:** May be applied to both ferrous and non-ferrous.

**TOPCOAT REQUIRED:** None Required

**SPECIAL TREATMENT:** None Required

**COMPATIBILITY WITH OTHER COATINGS:** May be applied over PrevCor, MCS or HHBK to increase corrosion resistance, withstand higher substrate temperature or to increase the thermal barrier functions.

**SPECIFICATION DATA**

**THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL:** @ 30% WT.

**RECOMMENDED DRY FILM THICKNESS PER COAT:** .001" to .0015"

**THEORETICAL COVERAGE:** @ 400 Sq. Ft. Gallon

**SHELF LIFE:** 1 year.

**COLOURS:** Black and Blue in a Satin to a flat finish

**GLOSS:** Varies depending on application air pressure and temperature.

**HRC (Equivalent Rockwell C Scale):** N/E

**ADHESION (Tape Test ASTM D 3359):** 3.0 (Good)

**PENCIL HARDNESS TEST:** 8 + (Excellent)

**IMPACT TEST (ASTM D 2794 2 lb. Weight):** N/E

**FLEXIBILITY/ BENDING ADHESION ASTM D522:** 180° full load (Pass)

**THERMAL SHOCK:** Survives thermal cycling 1055F to 32F. Passes Ford Motor Company Thermal Shock Testing WSA-M2P170-A3 (550C)

**THERMAL TEMPERATURE RESISTANCE:** Survives base metal temperatures in excess of 1600°F. Handles temperatures to 2000°F. for short periods. Survives cyclic heating & cooling.

**PHYSICAL PERFORMANCE (Wear & Load):** N/E

**ACCEPTABLE SUBSTRATES FOR APPLICATION:** All Metals that can endure the cure temperatures.

**ELECTRICAL PROPERTIES:** N/E

**CORROSION TEST DATA:** Good after full cure

**CHEMICAL RESISTANCE:** Good after full cure

**ORDERING INFORMATION**



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Prices may be obtained from Tech Line Coatings, Inc. sales representative or main office.

**APPROXIMATE SHIPPING WEIGHT:** 11 lbs per gallon

**FLASH POINT:** 79° F.

**APPLICATION INSTRUCTIONS**

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. Those instructions should be followed closely to obtain the maximum service from the materials.

**SURFACE PREPARATION:** All parts must be absolutely free of all oils, grease, moisture, dust, scale or corrosion.

**METALS:** For steel, sandblast\* with 80-100 grit aluminum oxide or similar.

\*NOTE: Phosphate treatment may be preformed in lieu of sandblasting or in conjunction with the above mechanical etch.

**FINAL CLEAN:** Before spraying the part must be thoroughly cleaned using air blast, hot water rinse, solvent based rinse, or any other method that provides a clean dry surface. DO NOT USE petroleum based solvents, that leave a residue.

**MIXING:** Stir and shake well.

**PRIMER:** None needed, recommend PrevCor for added corrosion resistance.

**APPLICATION TEMPERATURES:**

**Material Surfaces Ambient Humidity**

Normal	18-30°C	18-30°C	16-32°C	65-85%
Minimum	13°C	13°C	10°C	50%
Maximum	35°C	38°C	38°C	95%

**SPRAY:** Apply coating in 1 to 2 light passes (approximately 20% overlap) to achieve a thickness of .001" to .0015". Use sufficient air volume for correct operation of equipment. (Minimum 30 PSI, Maximum 45 PSI) Minimum part temperature should be 65f, if below warm up part. Spray at a right angle to part with a 1mm or smaller nozzle size. Spray all irregular surfaces and edges first, making

an extra pass later. Check part for complete coverage. Part should be a slightly gloss black color.

**GUN & Mfr.:** Any conventional unit. Recommended gravity feed type touch-up gun. (Important that nozzle size be 1mm or less)

**DRYING TIME:** A minimum of 15 minutes before oven curing. Avoid exposing to high temperatures before solvents have fully evaporated.

**FINAL CURE:** Typical: 316°C / 600°F for one hour at temperature.

\*\*\*Note: If final cure is attained and re-coat is necessary, special surface preparation may be required.

**VENTILATION AND SAFETY:** When used in enclosed areas, thorough air circulation must be provided during and after application until the coating is cured. The ventilating system should be capable of preventing fine particulate matter from exceeding TLV limits. In addition to proper ventilation, fresh air respirators or fresh air hoods must be used by all application personnel. Where flammable solvents exist, explosion proof lighting equipment must be used. Hypersensitive persons should wear protective clothing, gloves and/or protective cream on face, hands and all exposed areas.

**CLEAN UP:** Xylene, MEK, Acetone, PCBTF or other compatible solvent

**STORAGE CONDITIONS:** (Store indoors)

Temperature: 10-43°C Humidity: 0-100%

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**Note:** N/E = Not Established  
 N/A = Not Applicable